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ESSENTIALS FOR SUSTAINED RECOVERY

A SERIES OF ADDRESSES AND PAPERS PRESENTED AT THE SEMI-ANNUAL MEETING OF THE ACADEMY OF POLITICAL SCIENCE
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EDITED BY

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PREFACE

SINCE the autumn of 1929 the relation of government and business in any general program for recovery has been a topic of immediate concern to the American people. Yet the persistent debate on this highly controversial subject is seldom enlightening. In the vigorous presentation of conflicting opinions, too often emotion is mistaken for reason, and that which is superficial obscures the fundamentals. As the current business recession gives evidence of developing into a serious economic crisis, it seems prudent to emphasize, dispassionately and realistically, those factors which constitute the essentials for sustained recovery. The Academy of Political Science publishes this volume of its Proceedings, which contains the papers presented to the Semi-Annual Meeting (Fifty-eighth Year) at the Hotel Astor, New York City, on Friday, March 25, 1938, in the hope that it may stimulate further discussion and prove helpful to those who are responsible for the determination of public policies in state and nation.

To the speakers, to the presiding officers and to the Committee on Program and Arrangements the Academy is deeply indebted. The members of the Committee were: Wesley C. Mitchell (Chairman), Miss Ethel Warner (Director), W. Randolph Burgess, Lewis W. Douglas, Leon Fraser, Raymond V. Ingersoll, Thomas W. Lamont, Roswell C. McCrea, George O. May, Shepard Morgan, William L. Ransom, Gerard Swope, Leo Wolman and Owen D. Young.

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IMPACT OF REFORM ON RECOVERY

INTRODUCTION *

LEO WOLMAN, *Presiding*
Professor of Economics, Columbia University

THIS is the semi-annual meeting of the Academy of Political Science, and once more the Academy meets to consider business depression and the means of producing more or less lasting recovery. After four years of improvement, the curves of economic activity have again turned down, and government, business, farmers and wage-earners are concerned with the familiar problems of depression—unemployment, falling prices, reduced margins of profit, and the prospect of diminishing revenues and an increasing public debt.

With respect to the causes and cures of this disease that now plagues us in this country, there is wide and sharp difference of opinion. On one point alone can there be said to be an approach to agreement, and that is that cycles of prosperity and depression do not faithfully repeat themselves. In each there will be found new factors or old ones, compounded in new proportions, that tend to complicate analysis and make difficult the choice of alternative policies.

During these latest years of American business history, programs of economic and social reform have come to be regarded as powerful, if not determining, factors in the course of business. Policies aimed at redistributing wealth and income, regularizing employment, controlling industries charged with a plain public interest, and providing adequate care for the unemployed have become the principal preoccupations of our government.

* Opening remarks at the First Session of the Semi-Annual Meeting.

In the electric light and railroad industries, programs of control and reform are conceded to have a direct bearing on the attitude of private enterprise and the prospects for improving business. The private construction industry, in many previous periods of good business the foundation of expanding activity, has failed to respond sufficiently to the assistance of government, and is now in the throes of a new and substantial decline. Beginning with the N.R.A. in 1933, many novel factors have come to play a considerable rôle in our labor situation.

What public policy is and has been in these diverse situations, and how it may affect the state of business, is the subject of this morning's discussion.

We regret to announce that Mr. Arthur E. Morgan, who was to read the first paper, was unable to keep his engagement. Until the last moment he had hoped to appear and discuss public policy and the outlook for the utility industry. We spoke to him at Yellow Springs on Wednesday. He sent his deep regrets to the members of the Academy and promised to speak before one of our meetings at the very earliest opportunity.

The Academy is fortunate this morning to have for consideration of this difficult subject a group of scholars eminently qualified by practical experience as well as by long scientific training.

The first speaker will be Professor Isaiah L. Sharfman, of the University of Michigan, one of our foremost students of the railroad problem, adviser to many government agencies, and author of a notable treatise on the Interstate Commerce Commission, the oldest and most important of the Federal administrative boards. Professor Sharfman!

THE ELEMENTS OF A RAILROAD PROGRAM

I. L. SHARFMAN
Professor of Economics, University of Michigan

IT is everywhere recognized today that the railroad industry is in the midst of a grave crisis. Since the seriousness of the situation has come to be a matter of common knowledge, it is hardly necessary, in the few minutes here available, to set forth in any detail the factual circumstances responsible for the widespread apprehension. Because of the large and growing number of lines in receivership and reorganization, with the specter of bankruptcies rendered the more ominous by the increasingly discouraging results of current operations, both private interests and public authorities are deeply concerned over the railroad outlook, and a great variety of expedients are in process of exploration as possible avenues of relief.

Despite the rather liberal public credit extended to the railroads during the depression years, almost a hundred carriers, operating not far from one third of the entire railroad mileage of the country, are in the hands of receivers or trustees; and a large number of additional carriers, probably embracing another third of the railroad mileage and including some companies traditionally grouped among the strong and prosperous roads, are encountering serious difficulty in realizing current earnings sufficient to meet their fixed obligations. The pressure of these circumstances was brought to a head by the present phase of the economic depression. While the substantial recovery in the general industrial sphere which culminated in the summer of 1937 was paralleled in reasonably satisfactory measure among the railroads, it was followed, under the impact of the so-called business recession, by a precipitate and severe decline in railroad tonnage which does not appear, as yet, to have spent itself; and the critical financial situation which sprang from this sharp shrinkage in the volume of traffic was greatly accentuated by large increases in railroad operating costs, as a result of advances in wages, in taxes, and in prices of materials and supplies. Under these conditions the private

credit of the railroads has been virtually destroyed, and the carriers, taken as a whole, find it difficult to provide for full maintenance of their properties, and are without practicable means of attracting the capital necessary to effect improvements in service or economies in operation.

The principal objective of the railroads is to widen the spread between their revenues and expenses, so that they may achieve a more adequate net railway operating income. To this end they have sought authority from time to time, with measurable success, to institute advances in rates, and they are now in process of negotiation with representatives of their organized employees for wage reductions. But while the guiding objective is a necessary and desirable one—it being universally acknowledged that railroad earnings are far from sufficient to maintain the industry in the condition of financial health essential to the provision of adequate transportation service—it is difficult to escape the conclusion that these expedients are calculated, at best, to operate only as palliatives. It is very generally appreciated that such means alone, however favorable their immediate outcome may appear to be, cannot be expected to meet the grave and pressing problem of the railroads in any durable or far-reaching way. The Interstate Commerce Commission, viewing the railroad situation in all its numerous ramifications, has rendered pronouncements to this effect on many occasions; the thorough inquiries of the Federal Coördinator of Transportation, conducted with high competence during three crucial years of the depression, led to like conclusions; and similar views have not only been expressed frequently by private interests directly or indirectly related to the railroad industry, but are clearly reflected in the disclosures, not yet reduced to formal findings and recommendations, of the Senate Committee investigating railroad finance, as well as in the conferences of governmental and private interests recently held under the leadership of the President of the United States.

The proposals for meeting the difficulties of the railroads which have emerged in the course of all these discussions have been many and varied. Even the method of public ownership and operation has received some attention; but most of the expedients under consideration hold in view modifications or

extensions of the existing regulatory structure. It is neither necessary for our purposes nor possible in the limited time available to catalogue and describe and appraise all the proposals, or to consider even the more important of them in any but very general terms. They embrace, for example, such relatively minor demands of questionable validity as the elimination of the long-and-short-haul prohibition, in the interest of according the railroads a greater degree of flexibility in meeting the pressure of other forms of transportation, and the restoration to the rule of rate-making of the "fair return on fair value" formula, in the interest of imposing a more definite responsibility upon the Commission in the matter of railroad returns. Of greater importance and more soundly conceived are those proposals which place emphasis upon the need of subjecting the entire transportation system, including water carriers and air carriers, to the regulatory powers of the Commission, along the comprehensive lines now applicable to transportation by rail and highway, so that the railroads may be relieved of the artificial handicaps which are produced by the favored public treatment of some of their competitors. Principally and most significantly, however, they are concerned with effecting such financial and operating reorganization of the railroad net as is calculated to accommodate railroad capital structures to existing and reasonably prospective transportation conditions, and to eliminate the large wastes incident to multiple corporate ownership under the traditional competitive set-up and individualistic functioning of the railroad industry.

In searching for so-called "solutions" of the railroad problem in its contemporary phase, it is of the utmost importance that the realities of the situation, however unpalatable, be faced with candor; and such a facing of realties not only discloses the futility of relying upon panaceas—upon policies of automatic miracle-working potentialities—but virtually removes the possibility of according quick and sure relief to the railroads, under their existing financial and operating organizations, except through the uneconomic instrumentality of public subsidies. Such convictions with respect to the immediate situation spring from the patent circumstance that external factors—expressions of the general economic situation and of the transportation system as a whole—are the predominant

factors in the present plight of the railroads. More concretely, these external factors are: first, the drastic curtailment of economic activity as a result of the depression; and second, the growing impact of the competition of alternative transportation agencies.

The services of the railroads, particularly in their important freight-carrying capacity, are anxiliary to the entire complex of commercial, industrial and agricultural activity which constitutes the economic life of the nation. When that economic life becomes disrupted, as it has been very seriously disrupted throughout the nineteen-thirties, it is inevitable that transportation enterprise, embracing huge fixed capital commitments, should find it difficult or even impossible to pay its way. Transportation facilities constitute an integral part of our modern economic mechanism, and the fate of business as a whole is bound also to be the fate of transportation. Throughout the past seven lean and distressing years, the financial showing of the railroads has followed for the most part the ups and downs of general economic activity, and the immediate critical situation is likewise the result principally of sharp curtailment of traffic, induced primarily by the severity of the business recession. The basic need is for a very substantial increase in the demand for transportation service, so that a reasonably adequate utilization of railroad plant and equipment may be made possible; and this need can be successfully met, especially in view of the pressure of other forms of transportation, only by a full and sustained economic recovery.

For another external factor, within the transportation industry itself, has magnified the railroad embarrassments of recent years. The impact of the depression upon the railroads has been the more severe and debilitating because of the rapid development of alternative transportation agencies and services, the intense competition of which has resulted in vast diversions of even the greatly reduced traffic available under the depression economy. These newer agencies and services—by highway, water, air and pipeline—are permanent constituents of the prevailing system of transportation, and their expanding activities are bound to restrict the profitableness of railroad enterprise. It is important, of course, that the struggle within the transportation industry be maintained on an equitable basis,

so that victory in any given situation may accrue to economic superiority, in level of costs or quality of service, rather than to artificial advantage; but it is equally important, and soundly established policy, that the users of the instrumentalities of carriage, as well as the community at large, be not deprived of the fruits of progress in transportation, in mere support of the vested interests of the railroads and their owners. There can be little question, in these circumstances, that the newer transport agencies, though now sharing the distress of the railroads, are here to stay. They have enlarged the transportation system enormously, and they have rendered it readily expansible, particularly through the channels of motor-carrier service. In the large, then, the underlying difficulty of the contemporary scene is to be found in a very substantial surplus of transportation capacity. Even with a normal flow of traffic the railroads can scarcely escape the adverse effects of these transportation conditions; the conjunction of the business depression and the new competition, unmitigated by any drastic change in the financial and operating organization of the railroads, has produced the pressing elements of the recent crisis. It is this general economic and transportation environment which renders immediate relief to the railroads, on any sound basis, virtually impossible of accomplishment.

There appears to be no valid basis for further resort, in the present crisis, to the expedient of rate advances. Since transportation charges find their way into the producing or distributing costs of the entire range of economic enterprise, additional increases in these charges would tend to hamper the very recovery movement upon which the salvation of the railroads chiefly depends; and since the railroads are faced by a sensitive and vigorous competition from other forms of transportation, higher rates might well accelerate the very diversion of traffic which has constituted an important contributory cause of their difficulties. While it is too much to expect that the intricate rate structure of the railroads will at any given time be entirely free from maladjustments, there is no evidence whatever, aside from the financial needs of the carriers, that the general level of railroad rates is unreasonably low. A careful examination of the rate-level determinations of the Interstate Commerce Commission during the depression years dis-

closes, on the whole, an attitude of liberality rather than of restriction, grounded in a deep concern over the low financial status of the roads. It is significant that throughout these years, despite the cataclysmic fall of commodity prices and the universal business distress at the depth of the depression, there has been no general reduction of railroad rates. On the contrary, substantial advances have been authorized on a number of occasions: in 1931 and 1935, in the form of emergency surcharges on specified traffic; and in 1937 and 1938, in more permanent form on most articles of commerce. It is true that the present average revenue yield per unit of traffic is considerably below the pre-depression level; but only in small part is this result due to rate orders of the Commission, issued in the determination of specific rate controversies and largely offset by the authorization of advances in like controversies. In some measure, too, the lowered average revenue yield reflects changes in the character of the traffic carried and in the length of hauls; but predominantly it is the result of rate reductions voluntarily made by the carriers in response to competitive pressure. Vast numbers of charges are maintained by the railroads below the maximum levels authorized by the Commission, and the approval of further general increases might well prove tantamount, for the most part, to conferring authority upon the railroads, virtually without restriction, to exploit their monopoly power over noncompetitive traffic, and even with favorable financial results far from certain.

When the roads turn to wage reductions, by way of lowering their operating expense, they must resort to negotiation, rather than rely upon their own determinations or government action; and in view of the expressed declarations of the representatives of their organized employees, the process is likely to be a prolonged one and the outcome problematical. Since the purchasing-power theory of recovery has gained much headway, since railroad labor forces have been drastically reduced during the depression years, since these reductions have not been paralleled by readjustments in capital structures, since the present wage rates are the result of very recent agreements between the managements and the men, and since the added burden of operating expenses springing from these wage agreements, as

well as from increases in taxes and in prices of materials and supplies, has been expressly taken into account and sought to be offset in the latest authorization of rate advances, the railroads are faced by momentous obstacles in seeking to improve their position through the instrumentality of wage reductions.

As far as immediate relief is concerned, there appears to remain, therefore, only further reliance upon public credit. But a continuation, or even a liberalization, of the loaning policies of the Reconstruction Finance Corporation does not alter any of the controlling elements of railroad distress, nor does it provide any basis for eventual amelioration of railroad conditions. It may postpone or prevent some threatening bankruptcies, and it may be justified as part of the imperatively necessary achievement of reorganization of the railroad industry in the interest of soundness of finance and economy of operation, but in and of themselves these loaning policies merely put off the evil day, without constructive contribution to the removal of a crisis which, except for the degree of its gravity as affected by changes in general economic conditions, may readily become a continuing one.

The first essential of such reorganization involves a substantial scaling down of the capital liabilities of the railroads, together with a reduction of the fixed charges entailed by bonded indebtedness to limits adequately supported, even under conditions of slack demand, by the expanded and competitive character of the nation's transportation facilities as they exist today. Such a thorough housecleaning, however adverse its immediate impact upon security holders, would tend, more than any other single policy, to rehabilitate the credit of the railroads, particularly if it were accompanied, as it should be, by a more vigorous and far-reaching public control of current financial policies and practices. In face of the great severity and long duration of the business depression, large capital losses must inevitably be taken in connection with railroad investments, as with capital commitments throughout the maladjusted economy. In the present situation, the fact that the amount of railroad securities outstanding in the hands of the public is substantially exceeded by book investment in road and equipment, or by any physical valuation that may be placed upon the properties, is far less significant than the fact that

the existing and reasonably prospective demand for railroad services, under prevailing transportation conditions, appears to be incapable of providing adequate support for that capitalization. That the heavy and inflexible burden of bonded indebtedness has constituted a major source of difficulty for the railroads has been amply demonstrated throughout the depression, and it is now reflected, despite much public assistance, in the accumulated defaults which have placed a large portion of the country's railroad mileage in the hands of receivers or trustees. In this connection, too, there is need not only of lightening the existing load of fixed charges, but of safeguarding the financial structures of the carriers more vigorously against undue multiplication of interest-bearing obligations, without orderly provision for debt retirement, in current financing.

If the interests involved perceived the wisdom of subordinating more or less barren existing rights to fruitful future possibilities, the scaling down of capital liabilities and the diminution of fixed charges might be achieved in some measure through voluntary readjustments, in connection with carriers which have thus far avoided formal financial embarrassment; for the most part, however, these objectives must be accomplished through the processes of receivership and reorganization, in connection with carriers which have succumbed to financial difficulty. Whatever justification there may have been for deliberately retarding these processes, through the use of public credit, during the earlier years of the depression, the painful but salutary readjustments patently required can no longer be postponed without jeopardizing the future of the railroads. It is essential that financial reorganizations be actively promoted; that dilatory tactics of managements or security holders be firmly repudiated, either through the existing tribunals or by means of new agencies expressly created to achieve expeditious results; and that governmental authority be directed to the adoption of reorganization expedients sufficiently bold to produce economically sound capital structures, grounded in the realities of the general transport situation and calculated to provide a reasonably stable basis for self-sustaining railroad operation. The practical difficulties involved in achieving such results are numerous and complex, since special

interests naturally resort to every available device for thwarting their accomplishment. But the mandatory subordination of these special interests is essential to the welfare of the railroads as well as of the users of their service. In the past the railroads have somehow managed to muddle through, despite the serious defects of financial reorganizations; at the present juncture, as one segment of a highly competitive transportation industry, it is doubtful whether they can withstand the mere opiate of feeble make-believe. Under the pressure of existing conditions the railroad industry will virtually have to remake itself in the course of the next generation; vast sums of capital will be required in the process; credit will be forthcoming only if the financial debris of past mistakes or past misfortunes has been effectively cleared away and capital structures are established which merit unquestioning confidence.

There is urgent need, also, as a second major policy, for recasting the operating organization and methods of the railroads, with a view, as far as practicable, to removing unnecessary duplications of services and facilities, eliminating wasteful competitive practices, and effectuating economies in the conduct of the industry. With the transformation of the railroad problem into a transportation problem in recent years, as a result of the rapid development of the newer carrying agencies, coördination has come to be widely accepted as one of the vital necessities of the transport situation. Achievement of this objective involves, of course, the extension of federal regulatory power to all the forms of transportation operating as public competitors of the railroads. The adoption of the Motor Carrier Act of 1935 constituted a significant step in this direction, and weighty considerations support the need for assertion of like authority over water carriers and air lines. A fully coördinated transportation system is of necessity dependent upon the establishment for all its constituents of an equality of status before the law, with the powers of control exercised by a single administrative tribunal, so that, as far as possible, particular transport agencies may neither enjoy artificial advantages nor be subject to artificial handicaps, and, in the interest of adequate service at reasonable cost, both the common and the distinctive problems of the various types of carriers may be accorded intelligent and harmonious consideration. But

coördination within the railroad industry itself, for the elimination of waste and the achievement of economy through more unified organization and operation, appears to constitute, at this juncture, an even more basic essential.

The maintenance of competition among railroads, with transport operations carried on by a large number of independently functioning carriers, is in the American tradition, and it has contributed strikingly to the rapid expansion and refinement of railroad facilities and services. But this multiple ownership and competitive operation have also been prolific sources of waste and difficulty, and in the transport situation now prevailing they interpose serious obstacles to self-sustaining railroad operation. So deep-rooted was our traditional faith in the competitive principle that for more than three decades, after 1887, public policy directed itself to unrelieved enforcement of competition among the carriers, despite the fact that positive regulatory power was at the same time being sharply strengthened and enlarged, chiefly on the assumption that the railroad industry was a naturally monopolistic one. By 1920, in no small measure because of the fruitful war experience with railroad unification, resort by the carriers to coöperation and combination, under the supervision of the Interstate Commerce Commission, was expressly authorized—through pooling arrangements, acquisitions of control, and consolidations—but because of defects in the law and the dominance of competitive strategy, relatively little has been accomplished in these directions. In 1933, in face of emergency conditions not essentially unlike those now prevailing, the Federal Coördinator of Transportation was authorized to further, and under certain circumstances to compel, coöperative activity among the railroads, for the purpose of eliminating wastes and effectuating economies, but statutory restrictions upon diminution of the then-existing labor forces of the carriers rendered his efforts largely futile. While the estimates of investigators as to possible savings from various coördination expedients within the railroad industry vary widely, there is general agreement that enormous avoidable wastes characterize the existing situation and that large net savings are therefore possible, even if, during the transition period, reasonable provision is made for displaced labor. These savings may be

realized not only through actual consolidations, comprehensively planned, but in very substantial degree through pooling arrangements applied to equipment, shops, and certain types of traffic, and through unification of terminal facilities. Past efforts in all these directions have been rendered largely fruitless primarily because of an undue emphasis upon the maintenance of competitive conditions and because of public reliance upon the voluntary action of the carriers. Since the government is now clothed with vast regulatory powers and the railroads are now subject to an almost ubiquitous and vigorous competition from alternative transportation agencies, departures from the competitive principle and from competitive alignments appear to be justified in much more far-reaching measure than has traditionally been deemed to be safe or salutary; and since, under the voluntary provisions of existing law, the carriers have shown little disposition to subordinate their individual interests to common ends, the time appears to be ripe for resort to the processes of governmental compulsion. Such a reorganization of the far-flung railroad industry, particularly through a program of consolidation, calls for a balanced and orderly adjustment of numerous conflicting interests and must necessarily involve much time-consuming effort, even after the guiding legislative charter for this purpose has been established; but without such an operating reorganization, at least through the less formal coöperative arrangements, the foundations appear to be lacking for rendering the railroad industry reasonably self-sustaining and adequately prepared to integrate its activities, on a constructive basis, with those of an economically sound and technically progressive transportation system.

The vicissitudes of the economic breakdown and the pressure of the new competition have not been without beneficial effects upon the railroads. Under the spur of these conditions they have attained an increasing efficiency in the conduct of transportation and a forward-looking initiative in matters of service which promise well for the railroad future. The reorganization of financial and operating structures would supplement these gains very extensively, and it would tend to assure the continued dominance of the railroads in the field of mass transport. A national approach, embracing the railroad industry as a whole, is essential for this purpose; and if such an approach

cannot be encompassed, under private management, in the reasonably near future, a transition to public ownership will become virtually unavoidable.

REMARKS BY THE CHAIRMAN

CHAIRMAN WOLMAN: You have heard the paper by Professor Sharfman, of the University of Michigan, on "The Elements of a Railroad Program". Our next speaker will be Winfield William Riefler, Professor of Economics at the Institute for Advanced Study, expert on problems of currency and banking, at present adviser to the United States Treasury, a member of the Economic Committee of the League of Nations, and a participant in framing the housing policy of the present Administration.

Mr. Riefler will speak on "The Obstacles to Recovery in the Building Industry". Mr. Riefler!

THE OBSTACLES TO RECOVERY IN THE BUILDING INDUSTRY

WINFIELD W. RIEFLER
Professor of Economics and Politics, The Institute for Advanced Study, Princeton, N. J.

DURING the past year an extraordinarily sharp rise in building costs has terminated, at least temporarily, a promising revival in building activity and in doing so has paralyzed that arm of underlying basic demand that had been looked to more than any other to provide a broad and independent support for economic activity in this country in the years immediately ahead. The long upswing in business activity from the low levels of 1932 to the relatively favorable levels reached last year expressed itself in a general increase in output in practically all types of commodities, but was particularly marked in three categories of demand: first, automobiles and similar consumer durable goods; second, inventory expansion; and third, rehabilitation of our industrial plant and equipment. By early 1937 it was recognized in many quarters that these particular forms of expanding demand had very nearly spent their force. Current sales of motor cars, for example, were proceeding at a more rapid pace than could reasonably be expected to endure over a long period, and inventories of goods were reaching higher levels than seemed justified. Some contraction in the case of these two sources of demand consequently was in order. At the same time the most urgent undermaintenance and shortages of industrial equipment were in process of being filled. There were reasonable grounds, therefore, for expecting a recession from the early levels of 1937, a recession roughly comparable to that which occurred in 1924. There were also reasonable grounds for expecting that that recession would be neither long nor severe, since at the general level of activity reached in the spring of 1937, our economy had again attained a position where an expansion of productive equipment was justified, particularly

in the case of the utilities. At that time, also, the railroads seemed to be emerging from the most acute of their depression difficulties. More basic and more important than either of these potential sources of expansion, however, was the vast field of housing which had at last become active after having lain dormant for seven years. Here was a broad, widespread basis for durable goods activity which was well situated to withstand the shock of a temporary recession, which was, in fact, capable of limiting a downswing in general activity to a purely recession basis. In contrast to these expectations, the downturn in construction preceded the general recession. It was, moreover, particularly marked in the case of housing.

In searching out the reasons why this was so, the following discussion has been directed particularly toward an examination of the problems of residential construction: first, because residential building is normally the largest single component in total construction activity; second, because many of the cost factors which affect the volume of residential building are common to the whole field of construction; and third, because the state of demand for new residential construction constitutes an important factor in the demand for other types as well. New residential building, especially in new areas, for example, leads directly to increased outlays for construction in the form of roads, sewers, schools and public utility facilities, and on occasion may also stimulate commercial, institutional and even industrial construction in such form as stores, movies, churches and factories.

The wide fluctuations that have characterized activity in this industry since the War can best be summarized by reference to the studies of Mr. David L. Wickens at the National Bureau of Economic Research. During the War, home building was curtailed and housing shortages were accumulated as a result of mobilization of labor and materials for military uses. There followed an exceptionally active period in which an annual average of more than 800,000 new dwelling units were constructed between 1922 and 1928. In the drastic slump that followed, the level of new construction sank to 55,000 units in 1933 and again in 1934. Revival started in the spring of 1935 and reached its highest point in the year ending with June 1937, when more than 300,000 units were built. Beginning

early last summer residential building again slumped rapidly and during the past few months has been again running at very low levels.

It is this latest revival between 1935 and 1937 and this latest slump beginning in the middle of last year that are germane to a discussion of current prospects for building. For this slump came at a time when conditions other than costs were highly favorable. It is important to emphasize this peculiar characteristic of the present slump because there is grave danger that it will be confused with the long, harrowing downturn in building that began in 1928 and persisted through 1934. It is only natural that this should be so. The collapse of the building industry during the depression was so complete, and its revival during the last two years was so belated, so short-lived, and failed so completely to develop the volume that had been hoped for, that the present slump has tended to become merged in the mind with that which was dominant only a little more than two years ago. In point of fact it is radically different with respect both to its underlying causes and to the factors which may be expected to lead to revival.

Let me illustrate this point, because it is vital to the analysis. The almost complete collapse of residential building between 1928 and 1934 was complicated by the cost situation, but reflected primarily a simultaneous breakdown in three other vital pillars upon which residential construction rests. First, the period 1928-1934 represented the ebb point in the residential building cycle that began in 1921; in other words, it was a period in which a sluggish rate of residential building was to be expected even had conditions outside the industry remained highly favorable. Secondly, the period from 1931 through 1934 witnessed an almost complete collapse in the mortgage market through which residential building is financed. Finally, these were also the years of the great depression in which rents sank to levels that made new building completely unremunerative, as consumer incomes were cut in half, marriages were retarded, and large groups of the urban population were forced either to double up or to return to rural communities. It was this concurrence of unfavorable factors, acting and interacting upon one another that converted the reaction in new building, which became acute in 1928, into

a complete collapse of the industry. They operated with such severity that it was not until 1935, two years after the low point of the depression, that residential building activity began to reflect the general revival.

At that time the position of these three factors was again favorable to an expansion of activity. By 1934, for example, the surpluses of housing that had developed during the latter part of the preceding boom had been largely eliminated, partly by obsolescence and disappearance, through demolition, fire and flood, but largely because of the basic underlying trend of population growth. By 1935 our financial institutions were again in a position to finance residential mortgage construction, partly because of the general improvement in financial conditions and partly because of the widespread aid supplied by the Home Owners Loan Corporation. In that year, also, the Federal Housing Administration went into full operation. By 1935, finally, the general revival in employment and incomes had become sufficiently widespread to be reflected in rising rents, an undoubling of families, a reversal of the exodus of workers from urban to rural centers and an increase in marriages. In short, the three major factors in the downturn of residential building between 1928 and 1934 had again become sufficiently favorable to indicate the initiation of a new building cycle.

These three factors were still more favorable at the peak of the revival early in 1937, before the present slump in residential building activity began. At that time, the situation was not complicated by the current sharp curtailment of general business activity. On the contrary, the curtailment in building started at a time when general confidence was high, when business, employment and incomes were still expanding rapidly and were reaching the highest levels since 1930. Among the factors more immediately associated with real estate, furthermore, rents were rising, the volume of urban population was increasing, and the financial markets were developing constantly more favorable facilities for the financing of new construction. The current rate of building, furthermore, had nowhere near reached a level calculated to produce a surplus of housing. For example, the estimate given above of 300,000 dwelling units constructed during the twelve highest months

preceding June 1937 is below most estimates of the current volume of construction needed annually to take care of the current growth in family units. It certainly contributed little toward making up shortages of facilities built up in recent years through obsolescence, demolition, and loss through fire and flood. Our experience during the year demonstrated conclusively, however, that broadly favorable conditions such as these were not capable in themselves of withstanding the effects of such sharp rises in building costs as were experienced between November 1936 and May of 1937.

Any analysis of the causes of this rise in costs must necessarily be highly tentative because of the paucity of reliable data upon which to base generalizations. The most striking deficiency is the absence of a continuous series of comparable data reflecting the final cost of a completed dwelling unit including lot, roads, utility services and necessary appurtenances, on a site acceptable to the prospective owner-occupant, or tenant. It is this final cost and this cost only which expresses the relative importance of all of the subsidiary cost elements in the housing industry. It is also this final cost that is important from the point of view of general economic activity for it determines the effect of changing construction costs upon the demand for housing. It is almost impossible, however, to ascertain the trend of these final costs on a nation-wide basis, because it is impossible to find a continuous sample of comparable transactions upon which to base one's estimate. The building industry is highly decentralized. It produces a product that is subject to constant modifications calculated to meet the particular needs of each individual situation. The market for houses cannot be quoted, consequently, with anything like the precision common to the market for other commodities.

In the absence of conclusive data upon this vital aspect of the subject, one is forced to rely upon subsidiary data such as that compiled by the Bureau of Labor Statistics covering important elements in housing costs such as building materials and labor. So far as these go, they show a movement in building costs that parallels rather closely the general rise in costs during the same period. Between the second quarter of 1936, for example, when costs were sufficiently favorable to permit a rapid expan-

sion in output and the third quarter of 1937 when it became definitely clear that housing was entering into a new slump, wholesale prices of building materials rose by 12 per cent. This exceeded by a small amount the comparable rise in wholesale prices of finished commodities which advanced by 10 per cent, and was one fourth less than the rise in prices of raw materials as a group between the lowest quarter in 1936 and the highest quarter in 1937. During the same period, according to the Bureau of Labor Statistics, average hourly earnings of labor in the building construction industry rose by 15 per cent. This rate of increase was exactly the same as that which took place simultaneously in manufacturing as a whole, where average hourly wages in the durable goods industries rose by 17 per cent on the average and wages in industries producing nondurable products rose by 11 per cent. So far as these two widely quoted series indicate, therefore, the rise in costs of building materials and building labor during this critical period was average rather than exceptional. Building materials at wholesale, being less adapted to purely speculative movements, rose less than raw materials, but by about the same amount as wholesale prices in general, and building labor showed a smaller rate of increase in hourly earnings than in those industries such as automobiles and steel, where labor troubles were acute, but one that was equivalent on the average to the increase in manufacturing employment as a whole.

As the analysis proceeds beyond the basis of these more reliable data, however, striking divergencies appear which differentiate sharply the cost situation with respect to building from the general problem of mounting costs with which American industry has been confronted during the past two years. In the first place, outside of housing, price changes of most commodities at retail showed only a pale reflection of the sharp increase in costs of raw materials and labor. Cost of living indices show rising retail prices during this period when wholesale prices rose by nearly 12 per cent and hourly earnings of labor by 15 per cent, but the percentage increases appear to have been much smaller on the average. In the case of residential construction, on the other hand, although the evidence is admittedly scanty, the percentage rise in final costs to the purchaser of a completed home appears to have been

larger rather than smaller than the 12 to 15 per cent increase noted in wholesale prices and hourly earnings. Secondly, it would appear that the rise in final costs of a completed dwelling unit varied widely between different localities and tended to be more abrupt in those sections where expansion of building activities was greatest; in other words, where potential volume was most promising. Finally, the operation of these two divergencies together apparently produced a third striking difference with respect to their effects upon general business activity. In the case of housing, mounting costs appear to have operated directly upon the consumer and to have led to a slump in business activity because of the resistance of the consumer to the increase in prices for new housing accommodation. In the case of most other commodities, however, where retail prices advanced less than costs of labor and materials, sales at retail were better maintained relatively than in real estate, and mounting costs affected business activity primarily by inducing producers to defer postponable expenditures in an effort to maintain profit margins.

It is possible that the explanation of these divergencies is purely mechanical, that they are due to incomplete data and misleading statistical information. It is possible, for example, that quoted prices for building materials do not reflect accurately changes in costs of these materials to contractors. It is also possible that the sample of contracting firms upon which the figures for labor costs are based is not representative of firms engaged in purely residential construction. To the extent that the divergencies noted above are valid, however, they point either toward the presence of semi-monopolies in the building industry or toward a genuine strain in 1937 upon its productive capacity. In a sense probably both were operative. The building industry is highly unionized in many areas and its contracting and supply units have also been charged with monopolistic practices. At the level of promotion and sale to consumers of individual, completed dwellings, however, the building industry is probably as highly decentralized and highly competitive as any major industry in this country today. If, under these conditions, the rise in final costs to consumers of completed dwellings was actually greater than the concurrent rise in costs of materials and labor, it would indicate

that developers were faced with genuine shortages of capacity which limited the flexibility of their operations, diminished the possibility of evading cost increases through substitutions and forced the use of less efficient labor.

The aggregate volume of construction developed last year fell so far below that which was prevalent during the nineteen-twenties that it seems preposterous at first glance to explore the possibilities of a general shortage of capacity in the building industry. It is a highly decentralized industry, however, characterized by a great number of relatively small production units which between 1930 and 1935 passed through a period that can be described as near starvation. In the process there was probably a considerable deterioration both in supply capacity and in personnel of contracting organizations. The supply of skilled labor also shrunk, reflecting the passing of older workers from the industry, the transfer of many of the more alert workers to more stable occupations, and a dearth of accessions of new workers, effected in highly organized areas through a restriction on apprenticeship. All of these factors would tend to cut down the efficient productive capacity of the industry toward some point where rapidly rising volume would result in sharply rising costs. In the two years between the spring of 1935 and the spring of 1937, residential building did undergo a sixfold expansion, from an annual rate of 55,000 units to one of over 300,000 units. In an industry as localized and loose-jointed as building, such a rapid rate of expansion, even though the final volume was low, undoubtedly developed bottle-necks at numerous points.

Whatever emphasis one chooses to put upon the relative importance of the various cost increases which succeeded in the aggregate in reversing the trend of construction last year, it seems clear that the intervening months have brought some correction and that from a purely short-run viewpoint the industry is in a somewhat better position to go ahead. Such bottle-necks in capacity as existed last year, for example, have been removed by the slump and no longer constitute an immediate deterrent to a resumption of building activity, since contractors are again in a position to utilize less costly materials and more efficient labor. Official computations show, furthermore, that the rise in building wages has leveled off and that

wholesale prices of building materials have undergone a distinct recession. There are also rumors in the air of kickbacks and concessions which may have caused a sharper drop in unit costs both of labor and materials than is revealed in the official compilations. As evidence of readjustment we have, therefore, an increase in efficiency, some drop in unit costs, and the elimination from bids of charges formerly required as protection against cost increases that might be incurred during the process of construction. In addition, the recent amendments to the Federal Housing Act have materially lowered the real cost of financing both for home owners and for developers of multiple family projects, and at the same time have expanded the potential market for home ownership by lowering down payments and stretching the maximum period for amortization of mortgage commitments. All of the various cost and financing factors, therefore, have, at the least, moved in a direction favorable to a resumption of residential building. On the other hand, the potential market which existed last year has undoubtedly suffered from the general industrial setback. It is still too early to tell whether present costs are sufficiently favorable to permit revival in the face of this sharp impairment in the general industrial situation. Recent straws in the wind, such as the unexpectedly heavy rate of applications for mortgage insurance under the new terms now provided by the Federal Housing Administration, may indicate a stronger public demand at current prices and terms than recently seemed possible. Such a development would not be inconsistent with the experience and tradition of the industry. In 1921 and again in 1924, for example, the residential building industry showed its ability to initiate a revival in the face of a declining industrial situation.

Up to this point the title of this paper, "Obstacles to Recovery in the Building Industry", has been interpreted as applying to the various short-run obstacles which brought about the downturn in residential building that began early in 1937. It may also be interpreted, however, in quite other terms than those adopted above: it may be read to ask "What are the long-run obstacles to a sustained revival in building activity, a revival capable of contributing material improvement to our housing accommodations as a whole, and, in

particular, capable of meeting the growing indignation of the commuunity over sub-standard housing conditions?" The obstacles to a building revival capable of meeting these tests have not been touched upon above—they are much more deep-seated than any of the factors there mentioned and will require for their removal drastic readjustments both within the industry, and in the economic environment within which the industry functions.

From a long-term point of view, the residential construction industry of this country has developed in a highly sheltered environment. Bulwarked by a rapid rate of population growth, from immigration as well as natural increase, it has enjoyed a market that was in a continuous process of expansion. This has persisted since the founding of the country, and it has constituted a prime sustaining factor for the industry, in bad times as well as in good. Within this expanding market, furthermore, housing has enjoyed the advantage of being a necessity because the population had to be sheltered. It could not forgo housing in the same sense that it could economize on luxury goods. It is not strictly true, of course, that residential building must inevitably expand concurrently with a growth of population. A certain amount of contraction in space requirements through the use of smaller houses, smaller rooms, fewer facilities, doubling up, etc. is always possible, and can frequently be seen in operation when housing costs rise too far out of line in relation to incomes. By and large, however, the housing industry has depended almost solely, in this country, upon an expansion of population for an outlet for its product.

Under cover of the protection afforded by this rapidly expanding demand, various practices have become associated with real estate that would be utterly inconsistent in a more exposed industry—practices, furthermore, which will tend to become serious obstacles to sustained building activity as the rate of population increase diminishes. Real estate has traditionally constituted, for example, a prime vehicle for speculation, as well as a principal outlet for investment. A century of rise in real estate values has permitted local communities, furthermore, to depend upon the taxation of real estate for the bulk of their revenues. It has permitted lax methods in the handling of real estate finance, and lax methods in the zoning

and planning of cities. Finally, it has permitted highly inefficient practices to become imbedded within the organization and structure of the building industry itself.

That construction methods have failed to keep pace with the technical improvements that are generally characteristic of American industry is notorious. The typical assembly unit in the building industry, for example, has remained small in spite of the fact that it markets one of the most expensive commodities our economy demands. This is in sharp contrast to developments in manufacturing where large, well-capitalized producing units devote huge capital resources toward the development of economies in the production of commodities that retail for relatively small amounts. An operative builder, consequently, is distinctly limited in his ability to underwrite experimental research in new methods of production and to train workers to adopt such methods even after they have appeared. He is not in a position to cut costs through mass purchasing of materials but must be content to pay the high distribution costs that characterize small-scale distribution. He has not been able to adopt mass methods of assembly. Because failure on any one operation may involve losses sufficient to impair seriously or even to wipe out his capital resources, he has been forced to rely upon highly skilled craftsmen and has not been in a position to experiment with economies that result from the dilution of skilled with unskilled labor. Finally, because he could not promise regular, steady employment at an adequate annual wage, he has been forced to accommodate himself to forms of unionism that further impede his flexibility in adapting himself to new conditions. The high unit costs, utterly out of proportion to the resulting annual incomes that pervade the construction industry because of the archaic nature of its craft organizations, their jurisdictional disputes, and their rules for the protection of jobs, are sufficiently well known to require little exposition in this paper. In all of these respects and many more, practices in the building industry differ widely from those characteristic of technically advanced American industries. These practices could have evolved only in a sheltered setting. That they have maintained themselves at all constitutes a striking testimonial of the advantages which

the industry has enjoyed because of the expanding markets afforded by the constant growth in population.

That growth is still in process at the current juncture. It constitutes, in fact, our most compelling reason for expecting that we are now going through the initial stages of a new building cycle. Already, however, there are signs that the force of this factor is beginning to diminish. For even though the annual increase in new family units requiring shelter is still large and will require a heavy rate of new building over several years, it comprises, today, a much smaller fraction of the existing population than was generally characteristic during the last century. The community, consequently, is in a much better position than formerly to resist high housing costs through economies in its use of space.

Within a measurable period, on the other hand, this factor of growth will cease to exercise its effects. There is abundant evidence to indicate that our population is stabilizing and that within the lifetime of many of us present today, the construction industry will no longer enjoy the advantage of a constant increase in the aggregate demand for shelter. This will constitute a major shift in its environmental situation. For example, the problem of overcrowding as such will tend to disappear. The problem of obsolete and sub-standard housing will tend to be accentuated. In these circumstances, the ability of the industry to survive will depend upon the extent to which it is able to develop a replacement demand for housing, that is, the extent to which it will be able to offer consumers sufficiently attractive new housing at sufficiently reasonable costs to induce them to incur additional housing expenditures rather than remain content with older housing at lower costs. This is a problem which the industry has never faced in this country. There has, of course, been some replacement of dwelling units in the past. In the main, however, it has been limited to replacements required by the growth of commercial areas. The great bulk of new building has constituted a net addition to our housing supply.

Within a measurable period, therefore, the building industry will encounter hazards which it has never faced before. These same hazards, however, also present an opportunity which the industry may exploit, provided that it can gain control of its

internal problems. The cessation of population growth in itself tends to a certain extent to create a potential demand for replacement of housing, since smaller family units have a larger margin of income available for expenditure on semi-luxury products. The ability to afford modern housing consequently will extend farther down the income scale than has been true in the past when the bulk of the income of most families was required to meet elementary needs for food, clothing and minimum shelter. To avail itself of this opportunity, however, the building industry will have to be technically qualified to compete for the consumers' dollar on a parity with more advanced industries such as the domestic appliance industry, the automobile industry, and the vacation industry. It is extremely doubtful whether it could meet the test of this competition today.

The building industry is, of course, not unaware of the opportunities implicit in this situation, and also of the obstacles it must overcome in order to survive. It is, in fact, in a state of ferment. There is widespread experimentation in progress into new methods of construction and improved techniques of organization. Traditional patterns of housing finance are in flux; governmental bodies are beginning to concentrate on the complicated problems of community planning, slum clearance, and housing for families of low incomes; and there are scattered evidences in various communities of attempts to reapportion the burden which real estate bears in local taxation. In the longer view, the future of building is inseparably linked with the relative degree of success or failure that attends these efforts. For drastic changes in the fundamental structure of the industry will be required to meet the new environmental conditions that are emerging and to overcome obstacles to survival of a much more obstinate and basic character than those which are current today.

Remarks by the Chairman

Chairman Wolman: Our third speaker will be Isador Lubin, United States Commissioner of Labor Statistics, formerly of the University of Michigan, and a member of the Brookings Institution, author of books and articles on unemployment, the wages of coal miners, the unemployment policies of England, and a distinguished public servant. Dr. Lubin will talk to us on "The Labor Situation as a Factor in Business Recovery". I have the pleasure of introducing Dr. Lubin![1]

[1] *Cf. infra*, p. 112 *et seq.* for the paper presented by Dr. Lubin.—Ed.

Remarks by the Chairman

Chairman Wolman: We have had three main papers of this morning's session, and shall now proceed with the discussion.

The discussion will be opened by a practical economist, now a member of the firm of Wellington & Company. For many years he was the Administrator of Finance in several countries of Latin America. I have the pleasure of introducing Dr. William W. Cumberland!

DISCUSSION: IMPACT OF REFORM ON RECOVERY

WILLIAM W. CUMBERLAND
Economist, Wellington & Co.

MR. CHAIRMAN, MEMBERS AND GUESTS OF THE ACADEMY: The program states that the topic of this morning's meeting is the "Impact of Reform on Recovery". Now if I understand the meaning of the word "impact", it means to hit, and so I assume that reform has hit recovery. That is apparently what is the matter.

At all events, reform has been kept very closely under the blanket this morning. We have not heard much about it, and I wonder if that would imply by any chance that the reformers are not quite so much convinced as they were, perhaps, two or three years ago that reform and recovery are synonymous.

Now to discuss some of the papers and the points that were brought up, it seems to me that Professor Sharfman gave a comprehensive analysis of the railroad situation, pointing out the very real difficulties in which that great industry is involved, but as to the remedies it seems to me that some questions can be raised.

Professor Sharfman, of course, made the usual point about the necessity of shrinking the railroad capital structures. He failed to mention that there has been physical valuation of railroads; that such valuation was an accepted policy of government; that railroads, at least by implication and possibly by law, were to be allowed by the Interstate Commerce Commission to earn profits on such valuation which would have prevented the financial difficulties in which the railroads as a class now find themselves.

I do not know why Professor Sharfman neglected to mention that, but it does seem to me that the failure militates very strongly against the conclusion which he reached in regard to the desirability of reducing capital structures. He proposes, "Let's clear away the debris, put the railroads in sound position, so that they can obtain adequate new financing." Some of you in this room may be holders of railroad securities. You are aware that on the basis of most careful and expensive evaluation, it has been determined that the physical value of the properties far exceeds the nominal value of the securities which have been issued and, of course, infinitely exceeds the present market value of railroad securities. So you are told, "Go through the wringer, take your medicine, and then you will be in a happy frame of mind to put further money into the business."

We are also told that the railroads are suffering from new forms of transportation. Has it occurred to you that these forms of transportation are on the whole unregulated, and that, perhaps, that is the reason why they are able to compete so successfully against the railroads?

I, for one, am hardly willing to see our magnificent aviation industry, a model of progressiveness in ingenuity of design and efficiency in transport operations, brought under official regulation so that it will have what Professor Sharfman described as the inefficient and unprogressive record which the railroads have enjoyed under regulation, resulting now in actual or threatened bankruptcy on a wholesale scale.

Professor Sharfman also failed to mention the effect of working rules. This is not the time to discuss in detail the working rules of railroads, but in a general way I will give just one or two examples. For instance, a certain railroad with whose operating policy I am quite familiar found some branch lines unprofitable, particularly as to passenger traffic, and found that by substituting for the existing passenger trains a Diesel-powered single car those lines could be turned from a loss to a profit. Arrangements were being made to take that action when the Railroad Brotherhoods stepped in and said: "Certainly. Of course. That is fine. But you must recognize that a train is a train, and you must have on your new, single Diesel car a full crew, consisting of an engineer, a fireman, a conductor and two brakemen—a complement of five." That made the difference between a profit and continuation of the loss, so all of the passenger service was abandoned, and whereas one or maybe two men could have had jobs, five for each train were thrown out of jobs.

As a second illustration, in the earlier days of railroading one hundred miles was considered a fair day's run for freight service, and it was. But with increasingly improved rolling stock and motive power, roadbeds and the like, higher speed became possible, and the railroads naturally were able to run much further than one hundred miles for an average day. But one hundred miles continues to be the basis for the payment of one day's compensation to railroad employees. For a day's work a train crew may receive two or three days' pay, and the public foots the bill. It seems to me that in looking for a remedy for the railroads these working rules of unions might be examined, and yet, even among the railroads, I find no inclination to raise that point and to seek the very real and very considerable economies which are possible in that direction.

I meant to call your attention to the position of the railroad debt in the financial community. We all realize that it has been almost impossible for railroads to obtain equity capital for a long series

of years. Consequently, such small amounts of new capital as have been obtained have been on a debt basis, with the result that the proportion of debt to total capitalization in railroads has consistently increased. This is thoroughly bad financial practice, but inescapable because of the shadow of government regulation.

But who are the buyers of railroad bonds? Who are the holders of this debt? They are our savings banks, our insurance companies, the trust funds of persons who have died and left their funds to beneficiaries who may not have great business experience—in short, those who depend on protected rather than enterprise capital. These are the investment funds, the endowments of our colleges and universities, the assets of our savings banks and insurance companies, which Professor Sharfman is now proposing to invalidate.

We ought to find some other solution for a great and essential industry than destroying the accumulated property of the community. It seems to me pertinent to remember that the freight rates of the United States are the lowest of any major country in the world, with the exception of Japan. That does not mean that our railroad wages or other operating costs are lowest. Our railroads must be credited with operating efficiency. They must represent very real service which capital invested in railroads has rendered to the community. Now Professor Sharfman proposes to render this capital obsolete.

If the present railroad system of the United States is furnishing almost the lowest priced transportation in the world, is not that alone sufficient reason for seeking a solution for the railroad problem outside of the destruction of the very capital which has made that record possible? How about trying less government regulation instead of more?

Dr. Riefler told us how the building industry went up the hill and then went down again. He has correctly stated that the construction industry is on a small-scale basis. He has failed to comment that it is a little difficult to ship houses around over the country, and that it seems necessary to build them on the spot where they are wanted. Therefore, it would seem an almost impossible problem of financial and industrial enterprise to create great organizations for the construction of housing.

I wish to congratulate Dr. Riefler for failing to present the British housing boom as an example which should be followed in the United States. Great Britain has now, in a period of five or six years, built housing which in my judgment is adequate for somewhere between thirty and fifty years, and hence has assured a thoroughgoing depression for that country. Already much of that housing is coming back on the builders; people are unable or unwilling to go through with their commitments; they are losing their equity. At least we

have been spared the suggestion that a similar policy should be followed in this country.

I noted as both Dr. Riefler and Dr. Lubin were talking that industries in which there has seemed to be the greatest distortion of labor costs and of the prices of the commodities involved have been those industries where (a) there is the greatest degree of unionization, or (b) where there is the greatest degree of government control. I do not know whether any generalization could be made on that record or not, but it does offer an interesting subject for further consideration.

Presumably most people in this room are aware that there are differences in wages between the North and the South in this country, and even between various industries. I was hoping that Dr. Lubin would address himself to some of the very real problems in labor relations which puzzle the minds of many of us. We have a Wagner Labor Act, and we have a National Labor Relations Board, and both the Act and the Board would seem to have had some effect on sustained recovery. But on that question, unfortunately, we heard nothing.

Another gap, it seemed to me, in Dr. Lubin's presentation was in failing to attempt to make a correlation between the man hour output which he discussed, and technological improvements, largely represented of course by additional capital which has gone into the various industries.

From the economic point of view, I think that " man hour output " is distinctly an open question. Steel-making, for example, used to be a rough, hard, rugged task; now almost all of the processes consist in pulling levers or touching buttons. Can it be said that the increasing output per employee, if any, is really an effect of labor efficiency for which labor should receive higher hourly compensation? Rather, might it not properly be stated that here is technological improvement, the benefit of which should properly go to the community at large after proper participation by labor and after proper payment for the capital which has made the improvement possible? But some of our labor friends seem to take the position that all of this increase is due to greater efficiency of labor alone, and hence labor as such should receive the entire benefit of the improvement.

While we have had a scholarly and thoroughly enjoyable program, I still wish that we had heard something on the problem of the " Impact of Reform on Recovery ".

PART II

ESSENTIALS FOR SUSTAINED RECOVERY

INTRODUCTION *

LEON FRASER, *Presiding*
President, The First National Bank of New York
Trustee, Academy of Political Science

LADIES and Gentlemen: It is my privilege on behalf of the Academy of Political Science to welcome you to the luncheon today.

Our topic, " Essentials for Sustained Recovery ", implies by its wording that the abrupt reversal of the recent recovery movement is attributable to the absence of some fundamental requisites that constitute conditions precedent to any truly *sustained* advance.

What is the essential prerequisite for want of which recovery was arrested and for the lack of which we have receded into new depression? After reflection, many answer that the essential essential which must be present is a coöperative spirit of mutual understanding and mutual helpfulness between government and enterprise, both sharing a common economic philosophy, and both in harmony upon the guiding principles of the American political and social system.

No one can honestly say that any such mutuality exists to-day, nor can anyone honestly say that government itself has fixed its economic and social philosophy, either by consistency of action or consistency of speech, in such a manner that enterprise can comprehend what that philosophy is, or can reasonably conjecture what may happen next.

No one can honestly say that enterprise has done all it ought in realizing the mighty burdens that hamper government or in

* Opening remarks at the Semi-Annual Luncheon Meeting.

recognizing the world-wide social changes that have recently evolved, or in endeavoring by counsel to reëstablish in a coöperative manner the bases of satisfactory relationship between itself and government.

Until progress is made in this direction and government ceases to vilify and obstruct business, and business ceases to denounce and belittle government, any assurance of *sustained* recovery seems vain.

Both of our speakers know intimately government and enterprise and the difficulties of each. They lament the existing chasm and they are eager to eliminate the causes that have brought it into being, and eager to effect those changes in attitude and action that are necessary to bridge that chasm.

Perhaps they have the answer to the query, "How can business and government again be brought to coöperate in understanding and in helping each other, thereby releasing the real essentials of any sustained recovery?"

I first introduce an outstanding American citizen endowed with a highly trained and gifted mind, ripened by large experience in public and in private affairs, a practical business lawyer who has long been a student of all our economic problems, an active progressive in thought and politics since the days of Theodore Roosevelt, a specialist in recovery, sustained and unsustained, because in his responsible official rôles during the administration of the National Recovery Act he has already recovered us once. Mr. Richberg!

ESSENTIALS FOR SUSTAINED RECOVERY

DONALD R. RICHBERG
Former Chairman, National Recovery Administration

THE topic of the day has an engaging simplicity. But the discussions arranged for the morning and the afternoon seem designed to obscure the hard, grim nature of essentials in a protective fog of expert opinion and detailed analysis of particular problems. What should be done about public utilities, railroads, the building industry, labor and unemployment, monopoly and competition, the uses of capital, and the distribution of wealth and income? If a sustained recovery is to wait upon a satisfactory settlement of these questions, we might as well " eat, drink and be merry, for tomorrow we die ".

So the astute program makers have provided a period of physical nourishment and mental relaxation in which a couple of seasoned politicians may discuss the political forces that will guide us without economy to a political economy and without science to a political science. What government *ought* to do or *ought not* to do is a subject for endless debating. But what government *can* do and *will* do depends very largely upon effective public demand. The unscientific measurement of that demand is an art of politics.

In a democracy, enjoying the educational infection of public schools, free press, free speech, incessant radio and universal movies, we know a great deal about what people want. But we find it hard to agree upon what we can get, or how we can get it.

We all want freedom, security and the abundant life. But no one can enjoy freedom without having other people restrained from injuring him by force or fraud or oppression. No one can enjoy security in this interdependent world unless he can exchange his service for the services of thousands of others upon whom he relies for a constant supply of food and other daily necessities; and all too few can enjoy an abundant

life unless we can organize our productive-distributive system so efficiently and fairly that at least the vast majority of able-bodied persons can earn a good living.

The primary object of national effort, upon which a democracy can be most easily united, is the greatest good of the greatest number. If we seek progress in this direction, then some measure of individual freedom, individual security and individual gain must be sacrificed in advancing the freedom, the security and the prosperity of the people as a whole. There is, of course, a world of difference between a democratic program of organized self-restraint in aid of an individual pursuit of happiness, and the iron rule of a fascist, a communist or a totalitarian state which forces the sacrifice of individual freedom in the pursuit of collective security and prosperity. Under the democratic ideal the state exists to serve the individual. Under the prevailing alternative ideal the individual exists to serve the state.

In discussing today the essentials of a sustained recovery, let me reassert my faith that a recovery can be sustained in the United States without the sacrifice of our institutions and ideals of political and economic freedom.

Let me also reassert my conviction that a recovery cannot be sustained without the voluntary sacrifice of some of the individual liberties hitherto enjoyed, in order to maintain a necessary coöperation for the common good. Please note that I speak of *voluntary* sacrifice. That does not mean that the protection and progress of an industry or the entire nation must wait upon the convincement of every stubborn person who is unwilling to play his part in a coöperative program. I mean that there must be a willingness on the part of the great majority to discipline themselves before any compulsory measures are adopted. I mean that a preponderant public opinion must recognize a need to subordinate self-service to public service before a democratic people should attempt to impose legal obligations.

One of the greatest obstacles to a sustained recovery is the mental difficulty that so many business men, bankers and politicians have in conceiving that safe coöperative controls of a competitive system can be evolved. Their fears paralyze their imagination. Persons fearful of concentrated money power

have visions of an ultimate monopolistic control of commerce. Persons fearful of centralized political power have visions of an ultimate governmental control of business.

As a result, public opinion is made suspicious of every effort to establish any responsible controls of our industrial system. Politicians incite consumers, workers and small business men against every private project for the self-regulation of business; and business leaders look askance at every governmental call for coöperative service. Of course, it is foolish to trust everyone, but it is more foolish to trust no one. It hurts to lose faith in people, but it hurts more to have no faith.

As a matter of cold fact, business men and politicians, who understand the interdependence of all business, all workers and all property owners in an industrial civilization, must know that we have only two choices: *We will get together or get nowhere.* Either we will establish democratic, coöperative controls in time to avoid the collapse of an anarchistic competitive system, or we will drift into disaster and then seek salvation through accepting dictatorial controls.

What are these coöperative controls of which I speak? How should they be organized and employed? With great pride I assure you that I do not know. I have arrived at that Alpine height of wisdom where I am aware that no one man knows or can know how all industry and trade should be organized and operated.

In the last few years I have had an extraordinary opportunity to learn about the major problems of our major industries. Coöperative efforts to meet those problems are urgently necessary to preserve continuous operation, to promote expansion, and to protect workers, investors and consumers.

This need exists in large and small industries, and concerns all enterprises whether big or little. But any effective program must come from the composite wisdom and the common purpose of those who are to execute it. In many cases we have no present assurance that a majority want anything except the maintenance of a well-sanded arena in which they can cut one another's throats in a free-for-all exercise of individual liberty. Some of them, however, also want the government to arm them with battle axes and to restrict their competitors to wooden clubs.

But this is not a discouraging situation, because it has never been possible to tell how many people prefer a rule of reason to a rule of force, until a rule of reason has been tried. So long as trial by combat was accepted as the simple, manly way to settle all conflicts, it was difficult to establish civil government. Now we are gradually learning that civil government must rest on the economic foundation of civilized competition—a competition made tolerable, and directed toward social progress, by coöperative controls.

How then are we to establish such controls? How are we to achieve this essential of sustained recovery? Not by regulatory legislation. As the President said so forcibly in his last annual message, we cannot " conscript coöperation ".

Let it also be emphasized that coöperation, whether between business groups, or between management and labor, or between business and government, does not mean that Jack makes the plans and George carries them out, that Jack issues orders and George obeys. Coöperation means that people plan together how to work together, and then do it.

A democratic government seeking to preserve a system of free enterprise cannot require men to work together, cannot by law coördinate the units of private business into an industrial machine, cannot establish a centralized control of business management. A democracy cannot regulate a competitive system so as to enforce such obligations of public service as can be imposed upon a public utility monopoly. But a democratic government can foster the creation of self-governing controls and can safeguard the public interest against their misuse.

A democratic government can and should preserve the freedom of every trade and industry to regulate itself to the full extent of its capacity for self-government. A democracy should resort to political regulation only when necessary to protect the public from the abuses or failures of voluntary coöperation.

In such a governmental policy there would be no place for punitive taxation or other devices to destroy initiative, efficiency and economy in business and to preserve inertia, incompetence and waste. Under such a policy a government would not try, at the same time, to cripple competition, to compel concerted action and to make coöperation a crime. A consistent govern-

mental policy of encouraging organized self-help and self-discipline in advancing the general welfare would not destroy, but would preserve, individual liberty. Coöperative private enterprise is today the servant of individual demand.

You press a button on the wall and an electric bulb lights your room. Your individual need is satisfied by individual action. But you have at your service a vast, intricate organization of men and things, created to meet instantly the needs of thousands of individuals. Day and night that organization must operate under coöperative controls. This production and distribution system depends on the continuous flow of material supplies, on the continuous employment of workers, on the continuous operation of banks, on the continuous purchasing power of customers, on the continuous protection of government.

In a word, your individual freedom to enjoy light or darkness at your individual will depends on the voluntary meeting of voluntary obligations assumed by thousands of men playing their accepted parts in a great coöperative enterprise. But no amount of good will and honest effort will create a responsible enterprise unless all of those engaged yield some of their individual freedom of action to the control of others.

We all know that as a single business grows, and becomes more and more dependent on other businesses, and more and more consumers and workers become dependent on it, the need to develop and maintain adequate controls to insure continuous production becomes more and more a matter of public concern. We all know that the unbroken operation of a public utility must be insured—that a community cannot tolerate stoppages that would deprive it of light or water. But the continuous production and distribution of other necessities of life are equally essential.

We cannot live without food; we must have clothing and fuel and shelter; and, as an underlying necessity, in order to have money with which to buy the things we need, we must have gainful employment. Thus when opportunities of employment cannot be found by millions of people, in a nation with resources sufficient for the comfortable support of the entire population, the primary need for a sustained recovery is too obvious for discussion.

That primary need is the creation of adequate controls within each trade and industry, bringing some coördination into the entire industrial system, so that each unit of free enterprise, while retaining all the freedom of the individual worker, may, at the same time, be able to serve as a coöperating member of an organized and orderly society.

No one whose imagination is paralyzed by fear can be expected to agree with, or even to understand, this statement of the first essential of a sustained recovery. If a man's favorite nightmare is monopolistic big business, he may be expected to wake up tomorrow shrieking: "The Fascists are coming! Beware! Beware!" If his favorite horror is government bureaucracy, he may be expected to rise from haunted slumber shouting: "Down with Communism!"

Alarmists of both varieties may be expected to make so much noise that they will be unable to hear either counsels of moderate reform or the mutterings of despair among millions who are weary of waiting for the sunrise. If we are to make progress toward a sustained recovery, we must appeal to those whose ears are not filled with their own shoutings of fear and hate and prejudice. We must turn to those who understand that every program of human coöperation for the common good can be made an instrument of oppression and tyranny; but that only by coöperation under faithful leadership have human beings advanced themselves from the cruel hardships of a brutal struggle for existence to the ever-widening opportunities of modern civilization.

True it is, that every agency of human progress can be converted into a machinery of self-destruction. True it is, that every extended power of the human hand and brain can be misused to injure, instead of to help humanity. True it is, that religion and science and education can be made instruments of tyranny and selfish ambition, instead of public service. But is that any reason to forswear the use of coöperative methods, or to deny ourselves the aid of machine power and collective man power, or to outlaw religion, science and education?

Self-degradation is neither conservative nor progressive doctrine. The conservative seeks to hold what has been gained. The progressive seeks to gain more. Each renders useful

service. The radical is a progressive in such a hurry that he cannot stop to think. He is an irritating stimulant.

But the perennial obstructionist, an assured obstacle to democratic progress, is that timid creature who objects to every enlargement of human power on the ground that it will be abused. By bellowing against everything big, by snarling at every great organizer of human effort, by denouncing every large organization of collective power as a conspiracy against individual liberty and a menace to the security of little men, this obstructer covers up his own sense of inferiority, his own inability to grapple with large problems, his own suspicion of the good motives of anyone big enough for a big job, so that he may pose before his own mirror as a deep thinking guardian of the general welfare.

In truth, he is a dangerous enemy of the institutions and the people whom he believes he is protecting. He is the embodiment of an ancient fear of primitive men—that fear of a power beyond their understanding and beyond their control, which might destroy them. That fear was nourished for centuries when human working organizations were usually held together by organized force and when men worked together under the lash and not by voluntary association in a common task.

The democracies of the world arose after centuries of hard education had taught civilized men two lessons: First, that they could accomplish infinitely more by working together than separately; second, that they need not have masters to force them to work together and to appropriate the lion's share of the product. They learned that they could associate themselves together as free men and agree upon a fair division of the rewards of their joint enterprise.

In this civilized understanding of the need and value of coöperation, in this civilized faith in each other, in this civilized fulfillment of contract obligations, human beings created the institutions of self-government and free enterprise that have brought them in two centuries further from the poverty and slime and cruelty of brute existence than they had come in all the centuries before. The fabled glories of Greece and Rome make a miserable showing of the meanness, the misery and the ignorance of common life, when compared with the magnifi-

cence of ordinary opportunities and experiences in America today.

We live in the birthplace of representative democracy, in the land where free competition and voluntary coöperation and self-government have produced the highest standards of material comfort and spiritual freedom ever known, both for ourselves and, by example and contribution, for all the world.

We are the guardians of a great faith—faith in the ability of free men to work together under self-governing controls. In that faith alone we shall find " the substance of things hoped for, the evidence of things not seen ".

Remarks by the Chairman

Chairman Fraser: May I present to you a lawyer of independent leadership, a Southern gentleman of deep convictions, ever courageous in their expression; one who, among many causes, fought valiantly and successfully against the court-packing bill, who is opposing the pending reorganization bill and who is even so brave that in the very city of Washington he actuallv favors balancing the budget. That farsighted conservative Democrat from the Old South, Senator Bailey of North Carolina, who may sustainedly recover us yet. Senator Bailey!

ESSENTIALS FOR PERMANENT RECOVERY

THE HONORABLE JOSIAH W. BAILEY
United States Senator from North Carolina

WHAT do we mean by "permanent recovery"? Do we mean a recovery of social and industrial conditions that existed in 1919 or 1926 or 1936? Manifestly no. The 1919 conditions were induced by the credit inflation of the war; 1926 conditions were induced by the post-war credit inflation and speculation; 1936 conditions were induced by the Roosevelt recovery credit inflation. There is no permanency in conditions induced by credit inflation. It would be more in point to say that by "permanent recovery" we mean recovery from the consequences of 1919, 1926, 1936-37.

We have in mind a return to that situation in which steadily expanding enterprise provided livelihood for the American people as a whole, taking in year by year the young men and women who, in increasing numbers, required opportunity to work and, working, to improve their respective lots in life; a situation in which much depended upon the individual and but little more besides order and justice was expected of government. We had come to consider this the normal condition in the United States, disregarding the fact that for decades in many nations, and for centuries in others, it had been by no means normal. By "permanent recovery", therefore, we intend the making permanent here a situation that never has been permanent elsewhere. But this by no means suggests that we ought to abandon the purpose or consider it impossible. It has been more permanent in our land than elsewhere, and we may yet recover the conditions that we once enjoyed, and perhaps improve upon them.

May we not argue that generally the same system which produced this desired situation in the United States may be relied upon to restore it, especially since no other anywhere in any age has done half so well; and this notwithstanding the

present greater and more complex population and, for a few years to come, the rate of its annual increase; and notwithstanding, also, the displacement of workers by improvements in machines and the availability of mechanical power?

Men live by means of the production of wealth, and if the modern machine appears to displace workers, let us remember that that is but one side of the picture; the other side shows the machine as multiplying man's capacity to bring forth annual wealth. The more machines, the more mechanical power, the more wealth and, therefore, the better the livelihood. Our problem here so far from being one of despair ought to be one of hope. It demands adjustment of which we ought to be capable—adjustment to the new means of multiplying man power and the production of annual wealth.

One may inquire at once: What are the terms of that adjustment? To be sure there is no formula in such a matter. Generally, one may say that it will be wrought out by economic thinking upon economic experience, and not by the historic political method. We stumble for the present because we are undertaking to solve economic difficulties in a political way.

I pause to say that we must at any rate abandon that procedure, and the sooner the better; that we must temporize as little as possible with immediate consequences, and found our hopes upon a just regard for the long-time fruition. We ought not confuse emergency remedies with long-time readjustment. We should proceed without delay into the inevitable transition from artificial stimulants to the substantial and approved American process.

The American system of free enterprise and the American form of government are parts of one whole. Neither can exist without the other. They are the product of natural aspiration for liberty, of ordered liberty, and the special experience of the English-speaking people which produced the common law, the soul of ordered liberty, and of the method of evolving law out of experience—of finding the weakness in any aspect of the law, of identifying the mischief and applying the appropriate remedy consistent with the standards of the system. To the English experience our colonial experience added much, but it did not alter the process. We avoid the arbitrary, we cultivate the judicial. We conceive of govern-

ment in civil matters more as umpire than as administrator. We abhor government by decree. We go just far enough to find and apply our remedies, try them, and improve them as necessity demands.

It is conceivable that, with our attachment to the political rather than the economic, under pressure of special conditions and from special groups, we have lately been going too fast and too far from our accepted modes of government and of industry, and that the cessation of the flow of capital and of the expansion of enterprise is the immediate consequence. It is also conceivable that unless we correct our course, the ultimate consequence will be the breakdown and overthrow of the system. It will not withstand the strain of strict and vast centralization and regimentation, on the one hand, and it cannot survive its own failure to meet the aspirations of the people, on the other.

In this view our present circumstances present the first grave challenge to our constitutional democratic processes in our history.

I conceive that our only course is to build upon our historic structure, to preserve its form and its essential spirit, and, if we must alter, that we shall do so in the mode of the development of the common law evolution, the method of patience, applying Burke's standard of a due regard for the past with a capacity to improve, in the true liberal tradition.

So one may well say that the preservation and fair operation of our American system of constitutional representative democracy is a primary essential for permanent recovery. We cannot recover without it. We must seek recovery with it.

Our problems have heretofore seemed to be political rather than economic. The general economy in the new land could take care of itself, notwithstanding the blunders of politicians. But this happy situation lies behind us. Those blunders now are serious, and may no longer be afforded. Our federal experience in administrative law and regulation is new and brief. It is not surprising that we make blunders. It is rather gratifying that our blunders have not been more harmful. We need experts in the Congress, if not as members, at least as advisers to the committees. We must learn to think economically as well as politically. Tax laws must be framed, for

example, more with the view to economic consequences than to revenue. We have now many advisers on revenue but none on economic implications.

Nevertheless, it is not to be assumed that the problem of permanent recovery, as I have defined it, is wholly one of government. It is rather one of general policy, public and personal, upon which legislation and administration have important bearing, in which politics may help or hinder, and which is dependent even more upon what government may not do than upon what government may do.

At the present moment no small degree of our difficulty lies in too much concern on the part of the government in economic affairs, and too much dependence of population and industry upon government. The chief factor in recovery is the people, and the unit of the people is one person. Right now he needs more of that freedom of action, that self-reliance, and that incentive to achieve which erected the situation to which we would return. Here are moral and spiritual factors to be recovered. And here the political ought to withdraw all save the necessary restraints of an orderly society.

The soul of that astonishing progress in the United States, which gave us our unrivaled standard of living, lies in the word "incentive". Men here knew that labor would have its reward, that excellence would bring one to the top, that honorable dealing, frugality and self-discipline would put one ahead, that nothing less would serve, and that none could take away the fruits of diligence in endeavor. They knew that their enterprise would have full fair play. It is essential to permanent recovery that this incentive shall not be impaired.

Our great bulwarks of due process of law, of equal protection of the laws, of government responsible to the governed, of a government of laws and not of men, of independent tribunals of justice, and of local self-government—of governing powers restrained by a great charter—have been guarantees upon which every man could and did rely to protect him in his person and his possessions. In them lay security.

This singular appeal to the spirit of men accounts for our progress. It suffused the population with a vigor in well-doing that would have been, and always will be, impossible otherwise, that could not be approached in lands where the

rule was once a peasant always a peasant, once a chambermaid always a chambermaid, or where, in more modern organizations of government, the population works solely for daily bread.

It is, therefore, essential to permanent recovery that we abandon any policy that tends to impair this incentive, and that we adopt every possible policy reasonably calculated to encourage it.

I am not unaware that we enjoyed the boon of a new and favored land, and the structures of a vast civilization to build. These added to that incentive and, of course, they account for a measure of that progress. It must be recognized that it is not likely that we are hereafter to build so much or rebuild so rapidly. One of our problems is to adjust to an altered national tempo in an altered and disturbed world.

Our present question is: How far can we afford by the political method to adopt measures that tend to impair that incentive? How far shall we trust law and administration?

Men are afraid now to invest or expand. The characteristic of the depression since 1930 has been the cessation of the flow of capital into enterprise. At the beginning this was due to losses and to shock attendant upon the collapse of the credit inflation period. It was more normal than abnormal. But why has it persisted? Why does it persist? We have been recovering from depressions every few years for more than a century—recovering by way of the assertion of that incentive of which I have been speaking. Why does it now delay its normal operation?

Some excellent things to break the force of the collapse, and to put the population in position to start over, have been done. We provided loans for industrial and commercial institutions, we rehabilitated the entire banking structure, we restored to them immense funds of comparatively liquid assets, we built up an immense gold reserve, we refinanced and saved the mortgaged farm owners and home owners, we have undertaken to break down foreign trade barriers, we have taken reasonable care of the unemployed, we have brought about lower interest rates and lower power rates, we have gotten rid of certain unsound financial structures. We have suppressed certain bad practices. One may note that the corporations are

reporting good earnings for 1937, that retail sales were quite satisfactory until very recently, and that there has been extensive and beneficial refinancing throughout the country. For these achievements due praise to the President.

But capital does not flow into enterprise; there is but little expansion. Meantime 500,000 additional new workers have appeared each year, and recently the number of the unemployed has risen by approximately three million, while on every hand there is depression and a fresh access of doubt. We have not recovered. We are in better position to recover. But why do we not proceed?

May we not inquire whether, while doing these excellent things, which otherwise would have been sufficient to set us well on the road to genuine recovery, we have done other things which have tended to extinguish that incentive without which the men and women of our land will never strike their accustomed stride? May we not suspect that in our zeal we forgot that after all there can be no permanent recovery without the steady flow of capital and workers into enterprise? That we have confused emergency measures with normal operations? That in inviting the artificial we have repressed the natural?

What was the effect of the capital gains tax, enacted in 1932, which prohibited the offsetting of capital losses save against capital gains plus $2,000? Couple this with the higher income taxes. The investor was informed that if he made capital gains, the government would take a large share of his gains. But if he should lose, so far as his ordinary income was concerned, he would be taxed upon it as if it were net income. Men will not be inclined to invest money upon such terms. It is essential to recovery that this sort of taxation be abandoned. It was never intended that our citizens should be taxed save upon net income, i. e., ability to pay. A capital gains tax ought to look to the turnover of investment more than to revenue.

What shall be said of the tax on undistributed profits, the obvious effect, if not the deliberate purpose, of which was to put a penalty upon the application of earnings to payment of capital loans or to expansion of a business? It impaired credit, it repressed enterprise, and it tended to destroy faith

in the good sense and the good will of the government. It was never intended that the taxing power should be employed to regulate management or credit. It is essential that this sort of legislation shall be abandoned.

What shall be said of various undertakings—loans and works—that had all the appearance of a program of government competition with private enterprise? Men will not expose their savings to a competition that in its very nature is ruinous. We need here now emphatic assurance. If there is a field which the government intends to take over, it must be marked off at once. And if beginnings now made are precedents, who can give assurance?

It is essential to permanent recovery—essential to the flow of private funds—that all men know what is intended to be done with public funds. Men may well invite necessary regulatory laws under the equal protection and due process standards; men may bear great burdens of taxation, but their enterprises cannot survive regulation, taxation and government competition. To invest savings under such circumstances is to throw them away. It is essential, therefore, that the policy of government competition with private enterprise be abandoned.

Again, we have this matter of an unbalanced federal budget. We are all agreed that it ought to be balanced, and we talk much about it, but what are we doing about it? And what are the consequences of this prolonged state of unbalance—of deficit financing, and of ever mounting public debt? For eight years in succession federal expenditures have exceeded receipts by from a billion to three billions a year. The national debt has increased by more than $20,000,000,000. What is the effect? Taxes, present and future, are uncertain. Currency values are uncertain. The entire price structure is uncertain. Every investment, whether in bank deposits, insurance policies, loans or stock purchases, is uncertain.

We cannot expect capital to flow normally under such conditions. It requires at least a fair degree of stability. Men do not know where to put their savings, and they wonder what may become of past savings. They are induced to hoard rather than to earn. Here is a grave undermining of the

national faith; it goes on gradually, but its culmination cannot be doubted unless the process shall be arrested and reversed.

Nor may we longer depend upon promises and prospects. We must do two things—reduce spending, whatever the consequence, and increase revenue. It is out of the question to balance the budget within a year. But we ought to be doing enough of both to give firm assurance in every quarter.

Of what value are relief and other public spending, if they lead to ruin under circumstances that might predicate revolution—a general prostration and a bankrupt treasury?

So write a balanced budget down as essential to permanent recovery—indeed, as essential to the prevention of ruin.

Say what you may for the humanity of spending, its final phase is far from humane. Spending that destroys stability and represses investment destroys all means of reëmployment in enterprise.

Industry, for all its stimulation, had a discouraging year in 1937. Demand quickened, profits appeared, but the principal effect was a labor war of great magnitude. Industry reëmployed in 1936-37 about 6,000,000 workers, but it did not expand. In the last quarter it collapsed.

The act of Congress known as the Labor Relations Act provided not only for collective bargaining, quite desirable in itself, but also for the weapons of a vicious warfare. A wedge was driven between employer and employee, and federal agents marshaled the forces of discontent. There were elections, and election agitators, but owners and managers were under the duress of law to be silent. Strikers took possession of plants, and the governments acquiesced. A cabinet officer declared that the legality of this common law trespass with force and arms had not been determined. The mails were stopped and the Post Office Department surrendered. It would be neutral! In other words, government in the United States in 1937 ceased to govern.

Is it necessary to say that it is a fundamental essential for any sort of recovery that our governments, state and national, shall govern; that this must be a government of laws equally, invariably and promptly enforced? We abandoned the confederation because it could not govern; and we established this Federal Union in order that there should be government. Men

who invoke the law ought to be lawful. A government that succors its people must also govern them.

Capital will not flow, if the property into which it would flow may be occupied by men who will neither work nor suffer others to work. Nor will men invest savings, if others may take charge of their investments and manage them. For this reason government is quite as important to workers as to investors. There must be order in the United States before there can be justice or opportunity. What encouragement is there now to revive and expand if such a course as we had in 1937 shall be renewed?

It did not add to anyone's satisfaction in the premises that the leader of the sit-down strikers was responsible for half a million dollars in political campaign contributions and in the midst of the strikes referred significantly and insolently to the fact.

No one can object to an act providing for collective bargaining, but, to be a good rule, it must work both ways. If it restrains one side, it must restrain the other. If it binds one side, it must bind the other. If it prevents coercion on one side, it must prevent coercion on the other. No group of men in America ought to have power under color of law to compel any man either to join or not to join them. In such matters the government cannot be a partisan. If owners may not exclude a worker on account of his organized affiliation, organized workers ought not to have power to exclude him because he chooses to have none. Freedom must be freedom or surrender altogether. A just law as between management and workers is, therefore, another essential of recovery.

Much may be said for a balanced program of production, and the restriction of money crops in the interest of a sound farm economy. A great deal may be said in behalf of a national policy of conserving the soil and other natural resources, of flood control and reforestation. But a policy of reducing the production of annual wealth cannot be defended. If we are to have a materialistic realization of the spiritual phrases, "the more abundant life" and "green pastures", we must "replenish the earth and subdue it". If we would lift one third of the population to levels of well-being, if we would increase the federal revenue, if we would balance the budget,

if we would reduce the number of the unemployed, if we would increase the national income, if we would provide for those who are unable to produce, there is but one way and that is to produce more of annual wealth—more from the sea, the land and the bowels of the earth—produce it, transform it and see to its distribution. The encouragement of endeavor to increase production of annual wealth is another essential of permanent recovery.

Let us not confuse money with wealth, or price with wealth. The time will never come when a government may so contrive that one bushel of wheat will contain more of wealth than two, or that one bale of cotton will add more real income to the people than two, or that five hours' work will produce more wealth than seven. There is no substitute for work—and government is the poorest possible pretext of a substitute.

If we are to pay bounties they ought to be paid to induce production, not to repress it, to conserve the soil in order to produce a balanced agriculture of abundance, not to induce scarcity. There is no reason whatever for compulsion in the premises. It predicates too much for prudent men to stand for.

My point, in this review of current policies, is that if we would maintain our American system, if we would prevent that failure which would predicate another and a worse system, we must give it a chance. We must encourage and exercise that system, we must so exercise it as to provide incentive to American investors. I am well aware that there are those ready to say that artificial measures and drastic regulations were resorted to because that system had failed; that under no circumstances would incentive have operated. But the answer here is that we cannot be sure of this until we shall have tried it out, and we have not tried it out. Surely we will not, because of a great collapse throughout the world, proceed to abandon a system, that worked better here than in any other country for a century and a half, for systems that promise nothing in relative welfare and far less in the moral and spiritual values, without a determined effort to readjust and to preserve it.

Finally, there is a general suspicion, I hope not well founded, that in spite of all we may do our present system may fail;

even that public policy may come too late, or mistakenly, to its aid, in which event the fate that has overtaken other countries may overtake ours. It is reasonable to argue that the probable alternative to our system of constitutional representative government would be some form of authoritarianism, some type of collectivist society or totalitarian state. This fear also arrests the flow of capital, of industry, of commerce and of employment. It is essential to permanent recovery that we take every step necessary to allay it.

It seems to me that once the American people realize what such an alteration would entail, not only in the loss of spiritual and moral values of infinite import, but in poverty, suffering and cruelty, there will be no danger here. Grant every argument that may be made against our system, our state would be infinitely worse under any other. We would lose the priceless element of vigor that has brought us thus far, we would abandon the American incentive, and sink at once to a daily bread existence under the taskmaster's orders. For all that we have achieved, we would take in exchange the feeble activities of unrewarded endeavor; we would indeed discover that we had in a passing hour of distress exchanged the birthright of a lifetime for a mess of pottage.

Our American system will not fail. Our people will preserve constitutional representative democracy, and preserving it will preserve themselves and their destiny. It is established in the character of their civilization and in their cherished traditions. We will pay the price, whatever it may be. We will endure the ordeal, whatever its conditions. Have faith in the United States of America, in the constitutional representative democratic process, described by the fathers as the new order, not of a day, but of the ages—the order of that liberalism which derives from liberty of men as opposed to the power of authority. Have faith in the common sense and the character of the American people.

The people of this country have come up out of severe depressions again and again, and have been the better for the experience. More than once have they approached the edge of the precipice of ruin, and turned back, adopted sane counsels, rebuilt and enlarged. They have preserved their system and it has provided them with the sure solution of their diffi-

culties. It will not fail them now, nor will they abandon it. They will find the way to correct its weaknesses, and proceed.

In 1824 Henry Clay drew a description of the then existing depressions in terms which I might here read as perfectly fitting the present circumstances. In 1837 eminent men publicly despaired of the preservation of the Republic. There were dark years in the sixties. As recently as 1893 our foundations appeared to be sinking under us, and all the Jeremiahs had great liberty. How brilliantly have we triumphed again and again!

Some of us recall in personal memory the prostration of the people of the Southern States for three decades. When Lee surrendered, money did not exist within their borders, and all supplies were reduced to a minimum. But the Southern people with naught save the good earth and an invincible spirit recovered, and at this hour their region is the least depressed portion of our country. They paid the price in self-discipline, in simple living, in hard work and a protracted thrift and frugality. That system of free government and that incentive to high endeavor, which are the characteristics of our Republic, enabled them to overcome every consequence of unspeakable calamity.

If England may in her dark hours appeal to her history,

> All our past proclaims our future,
> Shakespeare's voice and Nelson's hand,
> Milton's faith and Wordsworth's trust,
> In this our chosen and chainless land—
> Come the world against us, England yet shall stand!

We may do no less. For ours is a story not of constant rise, but of difficulties and of triumphs.

There is naught for Americans to do but to press on, and, when that seems impossible, naught but to endure, to preserve and to survive. Readjustment will entail hardship; rebuilding will demand sacrifice; to carry on will require courage, but we cannot confess that we or our fellows are unequal to our tasks, or to the moral test of our times. Nor may we say that our circumstances are, at worst, less favorable than were the circumstances of those who have preceded us, and from whom we received our heritage and the inspiration of their examples.

We have all to lose and naught to gain in any other course, and with our loss would go also a shameful realization that we were unworthy to preserve the most precious inheritance ever handed down to a generation of mankind—our favored land, our representative constitutional democracy, our free spirit, our fair opportunity to burgeon forth all of which we are capable.

Twenty centuries ago a broken man, leading with all the world against him the desperate cause of a persecuted order, reviewed and interpreted three thousand years of his people's struggles and victories in terms of faith, not as a religious exercise, but as the spring of national progress and personal triumph. He summed it up in such words as these:

"Through faith they subdued Kingdoms, wrought righteousness, obtained promises, stopped the mouths of lions, quenched the power of fire, escaped the edge of the sword, from weakness were made strong, waxed mighty in war, turned to flight armies of aliens!"

One does not fail as he lingers by the Pilgrim Monument at Plymouth to observe that upon its towering shaft stands the symbol of Faith, nor does one fail, looking back more than three centuries to the event it commemorates and all that followed, to comprehend somewhat of its significance. Much do we need now to do and endure. More is essential than I have been able to detail. But above all the principal essential of permanent recovery is the recapture of Faith—in ourselves, in our fellow Americans, in the ministers of our government, in our constitutional democracy, and in our fathers' God.

PART III

THE PREREQUISITES OF RISING STANDARDS OF LIVING

INTRODUCTION *

WESLEY C. MITCHELL, *Presiding*
Professor of Economics, Columbia University
Director, National Bureau of Economic Research
President of The Academy of Political Science

YOU will observe that the program of this Fifty-Eighth Semi-Annual Meeting of the Academy of Political Science is all of one piece. At the morning session we had several excellent discussions of the " Impact of Reform on Recovery ". At the luncheon meeting, which Dr. Williams and I left prematurely in order to open this session at the time announced, they are discussing what Mr. Richberg called the " Essential Essentials for Sustained Recovery ".

This afternoon we are dealing with the closely related topic, " The Prerequisites of Rising Standards of Living ". It is clear, of course, that the real meaning of recovery from the viewpoint of the country as a whole is an improvement in the standard of living for the mass of the population.

The first paper this afternoon is to be presented by a distinguished economist, one of our wisest authorities on banking, a man of such versatility that he has been recently appointed the head of a new institution which aims to prepare men for all branches of the public service.

I have much pleasure in introducing Dean John H. Williams, of the Graduate School of Public Administration of Harvard University. Dean Williams!

* Opening of the Third Session of the Semi-Annual Meeting.

THE FORMATION AND USE OF CAPITAL

JOHN H. WILLIAMS

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MY topic this afternoon is " The Formation and Use of Capital ". We think of capital formation primarily in two connections, the business cycle and long-run economic progress. From these two points of view, capital formation presents something of a paradox. It is at once the hero and villain of our economic drama. We have come to look upon capital formation as essential to economic progress and to regard the business cycle, which is primarily a cycle of investment, as the price that we have had to pay for progress through capital formation. Not that we are content to pay this price in so far as we can learn to avoid it, but we have thought of our capitalistic system as one that has demonstrated its powers of growth, one that has resulted in increased real income, increased productivity per worker, primarily by reason of the application of capital to economic effort; and at the same time we have come to look upon the cyclical fluctuations of capital investment as a great unstabilizing force in our economy.

I am not going to speak this afternoon about the business-cycle aspect of capital formation, but about the long-run aspect, its relation to economic progress. That there has been such a relation in the past seems obvious. The whole history of modern capitalism can be brought forward in proof. In no other way could we have sustained the great increase in population that has occurred in the last two hundred years or so. We think of the Industrial Revolution, the expansion of the railway net, the age of steam, the age of electricity, the age of the automobile as all having been made possible through the accumulation and application of capital.

I want to dwell particularly this afternoon on the growing opinion—or possibly we should say the growing fear—that our

period of economic progress may be drawing to a close. The fact that we have now had two depressions in a row, the last one the greatest depression in history, and this one already a major depression in that it has gone beyond what we ordinarily think of as the limits of a minor depression—those facts have raised in the minds of many people the fear that the period of progress, the period of capital accumulation, of finding always new ways of applying capital in order to improve economic welfare, may be drawing to a close. That, it seems to me, is the central thesis of Keynes' last book.[1] That is what underlies a good deal of current investigation of the relation between saving and investment, and the tendency to conclude that there is danger of chronic over-saving or under-investment.

We are told, in other words, that this recurrence of depression may well mean that there is now a bias in favor of economic contraction, that we may have to find out how to live in a contracting economy, or to find some satisfactory alternative for private investment. This is not a new belief. One finds expressions of this kind all through the nineteenth century. Macaulay said in the eighteen-thirties that there seems to be something in human nature which prevents our believing that the next generation can make as much progress as the last. That is particularly true if we, in our generation, have been living through a period of rapid progress.

In England in the thirties, in the " hungry forties ", through the fifties, there was a great deal of talk of this kind, and in our own country during the period of the long depressions and the short recoveries—the seventies, the eighties and the nineties —there were similar expressions of this fear. One of the best known is that of Labor Commissioner Wright in the eighties. He pointed out that in all the industrialized countries there was a growing question as to whether we could find the means of applying new saving. Europe had expanded throughout the world, the frontier was disappearing, the railway nets had been pretty well completed, and it was difficult to foresee how we were to find the means of further progress on a comparable scale.

[1] J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York, 1936).

Again, immediately after the War, fears were expressed by many economists that the world had during the War developed an over-capacity for production and might be in for a prolonged period of retrenchment; and now, again, under circumstances of severe and prolonged depression, there has been a recurrence of these fears. How much truth may there be in this view? More fundamentally, how essential is the continuance of capital accumulation to economic well-being? Those are the two questions I want to deal with.

The view that capital accumulation may be coming to an end and bringing with it the end of an era of progress, presenting us with the quite different problems of a contracting economy, seems to me to rest principally on three grounds. One ground is that there is inherent in the capitalistic system a tendency toward underconsumption or overproduction, two names for the same thing. This view has interested economists through all the decades since the early nineteenth century. One of the first expressions of it was that by Sismondi, the Swiss economist, in 1819. We find it again in the writings of Karl Marx, who tells us that capitalism inevitably digs its own grave. We find it again in the social credit theories of the post-war period. In each case it turns essentially on the thought that the reinvestment of profit takes away from the consumer the purchasing power which is necessary to take goods off the market without loss to the producer. As Foster and Catchings expressed it, in what they called their dilemma of thrift, the result of the capitalistic system with its reinvestment of profit and saving is that purchasing power goes twice into production for once into consumption. Karl Marx put it on the ground that profits represent exploitation of the worker, that the worker does not get the value of his product and therefore cannot consume it, and hence there is under capitalism an inevitable growing tendency toward chronic depression.

We have seen expressions of this thesis in recent years in our own governmental policy. The N.R.A. was based in part upon the idea that there is a tendency toward deficiency of buying power on the part of the masses of the population, and that the way to get recovery is to raise wages in order to increase purchasing power. We have had many expressions of it since the N.R.A. was discarded, particularly in connection with the dis-

cussions of the undistributed profits tax and the wages and hours bill. It is a very persistent idea.

This view, that there is in the capitalistic system as it has hitherto functioned a persistent tendency toward underconsumption, has both cyclical and secular aspects. With the cyclical aspects I cannot deal. Though in some forms of statement it has a certain plausibility, which Hayek's work has not satisfactorily removed, I have never thought it a very convincing major explanation of the business cycle. As an explanation of what has happened in a secular sense, it has seemed to me totally unconvincing because it flies in the face of history. During the past century and more in which this complaint has been made, we have actually been making more economic progress than at any other time in the history of the world.

A second explanation, and one that appeals to many economists who discard the first, is that there are technological reasons for expecting a declining rate of growth of capital or even a cessation of growth. There is no law which compels steady continuing progress, and economic history does not show such progress. We have progressed by jerks through periods of time that are longer than a business cycle and which some economists call the long waves. The Industrial Revolution in England was followed by recurring periods of unsettlement and even of stagnation. Colin Clark describes the economic condition of the English workman in the middle of the nineteenth century as being truly deplorable. Similarly, the railway expansion, as it passed from country to country, provided no regularity, much less permanency, of progress, and terminated in such periods of stagnation as in the seventies and the nineties. Then came the burst of large-scale business organization and the age of the automobile and electricity, and, in the midst of it, the period of the World War. As we look back at this period from the present decade with its long depression, which is now renewed, we face again the question whether, and by what means, economic progress can be resumed.

As I say, this argument rests largely on technological grounds. It rests also on the disappearance of the frontier. We are told that for a long time the world could rely on pushing out the frontier from the European industrial center, and

so long as there remained a world frontier there was always a tendency in favor of renewal of development even though it might be interrupted from time to time. Now, as we are told, the frontier is gone. At any rate, it is gone in this country, and our experiences of the twenties with international investment have not left us in the mood to attempt to develop whatever frontiers may remain elsewhere.

This thesis presents a number of difficult aspects. It is far from proved that if world trade barriers, which have been greatly multiplied by the War and the depression, could be removed, there would not still be room for substantial progress through exploitation of the world's resources. The economically well-developed portion of the world is still geographically the minor part. The area of high real income is not very extensive, and even within this area the income is not really high for any but a minor part of the population. The present stagnation of international investment need not be taken as necessarily a permanent condition. The nineteenth century presents a number of parallels for our present discouragement in this regard, each coming after a period of excessively rapid or otherwise unwise international investment, but proving to be only a temporary interruption of a continuing development. Whether the world will have sense enough, and will find the means, to remove the barriers to international economic intercourse is one of the largest economic questions of our times.

But in any case, we ought not to exaggerate the importance of the frontier. The history of international trade indicates that trade has been greatest among the industrialized, capitalistically developed countries themselves, and not between such countries and the young countries, which constituted the frontier. Life on the frontier is after all fairly primitive and the main hope for increased production and consumption may lie within the areas which already have higher standards of living and greater technical resourcefulness.

But an even more fundamental question is how essential the continuance of capital accumulation really is for the continuance of economic progress. I have been very much interested by the work recently done by Kuznets in this country and by Colin Clark in England on the relation of capital formation to the national income. The experience of England since the War

seems especially significant. I confess to being one of those who during the twenties were inclined to take a dark view of England's future. Here was a small country primarily dependent upon international trade, which had been seriously impaired by the War and the wave of nationalism which followed it. Primarily for this reason, we thought of England as being in a state of semi-chronic depression from which there appeared to be little hope of escape. We talked of the necessity of liquidating the British economy in some sense, by migration of labor and capital or acceptance of a lower standard of living. How could England hope to find domestic alternatives for her great international industries which were declining?

Yet, since 1924, according to Colin Clark, England has made more progress in terms of real income and of productivity per worker than in almost any other period of her history. This small country, whose territory is no greater than that of some of our largest states, supporting a population one-third that of ours, now has a national income about half as large as ours. So long as such comparisons are possible we seem hardly justified in taking a gloomy view of our own potentialities of progress.

How has England's progress been accomplished in the face of such apparently strong grounds for pessimism? Progress has been made in two cycle periods, 1924-30 and 1931-36, the dividing point representing the impact of the world depression. In the second period, the improvement in the terms of international trade following England's departure from gold, which resulted in cheap imports, was an important influence, and even in 1924-29, contrary to much current opinion, the terms of trade appear to have been more favorable to England than in the immediate pre-war period. This may well be a special circumstance in England's case which cannot be generalized, since the " terms of trade " are relative and not all countries could expect improvement in these terms concurrently.

Another circumstance which Clark mentions, and which may strike some of us as more startling, is a " very considerable rise in general standards of consumption, among the rich through

the cessation of saving"[2] (and the poor through cheap imports). In his analysis of saving he finds that the important categories are undistributed profits, working and middle class savings (mainly through building societies and life insurance), and state and local authority savings. Even more surprising, perhaps, are his figures of net investment as a percentage of national income, which were 12.2 per cent in 1907, 8.1 per cent in 1924, 7.2 per cent in 1929, and 6.9 per cent in 1935.[3] To sum this up baldly, it seems to tell us that the progressing economic society is that in which (a) the rich no longer save, and (b) the proportion of national income which is saved and invested steadily diminishes. Clark sums up his own findings by stating that "I believe the facts have destroyed the view up till now generally prevalent, that the rate of economic growth was primarily dependent upon the rate at which capital could be accumulated. The very rapid expansion in productivity at the present time is taking place at a time of heavily diminishing capital accumulation. What is more remarkable, practically none of the capital which is being saved is being put into productive industry proper."[4]

These are surely very arresting statements. In the light of previously accepted economic doctrine, they sound at first like something from Alice in Wonderland. Yet they are the product not of social philosophy or of abstract economic theory but of the soberest kind of statistical work; and on reflection they are perhaps less paradoxical than at first they seem. The statement that in England the rich no longer save appears to mean in part that saving and investment are becoming increasingly institutionalized. The fact that investment has become a smaller fraction of national income may not be altogether irreconcilable with the orthodox view, which has held that capital accumulation is essential to economic progress. The two statements may well relate to different stages or phases of economic progress. In the earlier stages of economic development the emphasis is upon the rate of growth of new capital, but in proportion as the society becomes more capitalistic the emphasis may well shift to the replacement and improvement of existing

[2] Colin Clark, *National Income and Outlay*, p. 270.

[3] *Ibid.*, p. 185.

[4] *Ibid.*, p. 272.

capital equipment. This appears to be Colin Clark's own conclusion. He stresses the " improvement of our technical knowledge, and what is equally important from the viewpoint of the national productivity, the growing up of a generation of trained and experienced workers and technicians who can apply this knowledge." Given this knowledge and the ability to use it, he concludes that " without new investment the replacement of obsolete capital . . . appears to give all the necessary scope for the introduction of technical and organizational improvements, and to bring about the rapid increase in productivity under which we are now living."[5]

That this is a phase of change from an earlier to a later phase of capitalism, as I have suggested, appears to be borne out by Clark's estimates, and also those of Paul Douglas which he cites, of yearly additions to British home capital since the eighteen-sixties. Clark introduces them with the remark that " this [the decline of new investment] is no more than the continuation of a process which has been going on for generations." Capital accumulation was most rapid in the eighteen-sixties, which was also the period in which real income rose most rapidly. The absolute yearly additions to home capital reached their maximum in 1875, and have declined not only relatively but absolutely since that time. What conclusion to draw from these figures is rendered somewhat uncertain, at least for the pre-war period, by the fact that he offers no comparable estimates for international investment. From the standpoint of the British economy as a whole, and the effects of capital accumulation on it, neither category of investment would by itself tell the whole story, and neither could validly be excluded, and at some periods much more of British capital was invested abroad than at home. But in the post-war period, and particularly since 1930, the decline has been in both home and overseas investment. Yet it has not prevented a marked increase in per capita real income.

Some significant changes in capital formation in our own country and its relation to national income appear to be indicated by Simon Kuznets' study, recently published,[6] of *Na-*

[5] *Ibid.*, p. 272.

[6] National Bureau of Economic Research, New York, 1937.

tional Income and Capital Formation, 1919-1935. For this period he finds that of the average yearly volume of gross capital formation in the United States, 62 per cent in current prices and 68 per cent in 1929 prices represents capital consumption (replacement) and only 38 and 32 per cent, respectively, net addition to the stock of capital goods.[7] Leaving out public agencies, in order to get a measure of private capital formation, the comparison is even more striking. His figures show that of gross private capital formation, 81 per cent is accounted for by capital replacement and only 19 per cent by net capital formation.[8] These figures again suggest that our problem of economic progress has become mainly one of replacement of capital and of taking advantage of opportunities to improve the capital we replace and the technical efficiency with which we use it. From this point of view, an increase of the obsolescence rate might well be of greater importance in determining real income and productivity per worker than the search for new outlets for further capital development. And one should add, of course, that it is by no means certain that such new outlets will not be found.

Two other findings in Kuznets' figures deserve special mention. The first is the importance of residential construction in capital formation.[9] For the period studied it constituted 24 per cent of the yearly gross capital formation (1929 prices) and 11 per cent of the net addition to capital. Where to draw the line between investment and consumption is a difficult question, which we need not attempt to answer here (it would probably be different for different analytical purposes), but one important change which appears to be taking place in the modern economy is an increase in spending upon durable consumer goods, including not only houses but automobiles and many other products, as compared with producer goods; and here again, as the volume of such goods grows, it is the replacement (and improvement), rather than the further increase of volume, which will assume increasing significance.

[7] P. 49, and table 14.

[8] Including business, residential construction, and net change in claims against foreign countries.

[9] Kuznets, *op. cit.*, tables 13 and 14.

The other significant fact shown by Kuznets' figures is the importance of public agencies in capital formation. For the period covered, 1919-35, public agencies accounted for 24 per cent of gross capital formation and 49 per cent of the net increase in our stock of capital goods. These are striking figures, particularly the share of government in new capital formation. That this share is so large is due in part, of course, to the increased activities of government growing out of the depression and the conscious use of public spending and investment as a means to recovery. But the figures of the twenties[10] show that even then, under conditions of prosperity, government agencies accounted for about one fourth of net capital formation. One conclusion that has been drawn by economists who are fearful of a secular tendency toward declining private investment is that public investment must take its place. These figures indicate the importance which public investment has already assumed in our economy.

The reference to public investment brings us to the third reason which is advanced for expecting a slower rate of economic progress in the future than in the past, the relations of government to private enterprise. There are many who believe that we have come to a critical stage in these relations, in that we have developed a hybrid system, which is neither free enterprise nor collectivism, but such a combination of the two as gives neither a proper opportunity to function effectively. The result, it is felt, is likely to be an impasse, from which there can be no escape until it has been resolved by a much clearer indication than we have yet had of which course we mean to follow.

The history of governmental intervention did not, of course, begin yesterday. Indeed it is doubtful whether we have ever had a system that could truly be called laissez faire. But undoubtedly, under the conditions of the post-war world, we have been having intervention on a larger scale and in different ways from those to which we had become accustomed; and that has been true not only of countries such as Germany or Russia, where free enterprise has been entirely supplanted by a planned economy, but also, in much less degree, in countries like our

[10] *Ibid.*, table 13.

own, where governmental intervention has been forced by the great economic emergency of the depression. It was inevitable that this pressure for governmental intervention should take the form of demand not only for emergency recovery measures, but also for reforms and measures of social amelioration, some of which were overdue. It is a great misfortune from a technical point of view that the pressure for such measures should come under conditions which make it very difficult to institute them successfully, but that we must accept as a fact of democracy and of human nature. It would seem more intelligent, instead of storming against such intervention, to turn our minds to the difficult problem of directing it into constructive channels.

I am not convinced that in logic, at least, governmental intervention need mean the impairment of private initiative. It might well create the conditions under which private enterprise could operate successfully, in the interests of the whole community. But there may well be dangers of applying to the longer future conclusions which are valid only for the emergency, and of adopting measures in the emergency which may produce longer-run results which were not foreseen, or desired, in the beginning. It is in these connections that the disposition to take a gloomy view of the future of private capital formation might have special significance. There is at the present time, as a consequence of the renewal of the depression, a growing disposition to take sides as between a policy of removing obstacles to, and improving the conditions requisite for, private investment and a policy of renewed and enlarged public spending and investment. Into the merits of this question, strictly on grounds of recovery policy, I cannot enter. But one can readily see how the balance of emphasis as between two such approaches might be influenced by a pessimistic outlook regarding private capital formation, and how readily by such prejudgment we might find ourselves committed to measures which might bring about that very impairment of private enterprise which had been feared. Some economists point already to a progession of this kind in a chain which runs from deficit financing, intended to revive private investment, to increased taxation, which, both by its amount and by the forms that it has taken, has a tendency to impair investment

and the incentive to invest. How correct this analysis may be I have not space to consider, but there would seem to be an obvious danger of driving capital away from private investment and into public investment by a combination of high surtax rates and tax-exempt securities; and I have become more and more inclined to think, as I have studied the problem, that the undistributed profits tax, and the capital gains tax in its present form, work in the same direction.

Perhaps here again, we can take a lesson from the English experience or that of the Scandinavian countries. In those countries also there has been a large and a growing participation by government in the economic life of the community and in the organization and direction of saving and investment, but, as Colin Clark's figures would seem to prove, such intervention has been effected in ways which have not impaired private initiative and the processes of private capital replacement and improvement to which he mainly ascribes England's post-war economic progress. In England, also, there is a heavy tax burden, probably exceeding ours, but with the important difference that it has accumulated more slowly, so that the process of adjustment has been more deliberate.

There is perhaps no need of a conclusion for this paper. Of the three grounds which I have discussed as constituting the main bases which have been cited as indicating a prospective decline of capital formation, and with it of economic progress under private capitalism, the last, the relations of government to private enterprise, seems to me to raise the most important, and the most immediately pressing, questions. The main point of this paper, I think, is that in dealing with these questions, the answers which I have attempted to give to the other two appear to me to have much relevance.

Remarks by the Chairman

Chairman Mitchell: Whether we can or cannot attain and maintain higher standards of living depends in notable degree upon the distribution of income and of wealth.

That dependence will be discussed by Dr. Morris A. Copeland who has long been a student of the distribution of income. In recent years he has had as good facilities for observation as can come to any economic statistician; for the Secretary of the Central Statistical Board in Washington not only is acquainted with the many-sided statistical work of the federal government, but also takes an active hand in planning new undertakings. In addition, Dr. Copeland is one of the most active and valuable members of the Income Conference associated with the National Bureau of Economic Research. With much pleasure I introduce him to the Academy.

THE DISTRIBUTION OF WEALTH AND INCOME

MORRIS A. COPELAND
Executive Secretary, Central Statistical Board, Washington, D. C.

IT is proposed to consider certain relationships between national wealth and income and business fluctuations which existing information illuminates. The national wealth may be conceived as consisting principally of the value of all tangible assets in the country at a given date: land and improvements, equipment and fixtures, and inventories. To this total should be added, since we are a creditor nation, the net equity of residents of the United States in property located abroad or the nation's net external credit. National income may be conceived in two principal ways for our present purpose: first, as the sum of all individual incomes such as payrolls, individual business profits, interest, and corporate cash dividends and additions to surplus; second, as the total value of goods and services consumed by ultimate consumers plus the net increase during the year in our national wealth. Measurements using these two definitions of national income should, if consistently made, yield identical totals.

Great progress has been made during the past twenty years both in the data available for measurements of our national wealth and income and in the techniques of constructing such measurements. Nonetheless we cannot push the question of the relationship of distribution of income to business cycles very far without recognizing that there are still major gaps in our information.

We know much more about the magnitude of the national income and its various distributions than we know about the magnitude of national wealth. Fortunately, distributions of national income are for many purposes more important than the distributions of national wealth. The personal distribution of wealth has come to be significant chiefly in two connections. (a) It is a basis for the concentration of industrial control, and

(b) it is part of a circle which makes inequality in the distribution of wealth and income self-perpetuating: concentration of wealth—hence concentration of property incomes—hence unequal distribution of total incomes; unequal distribution of total incomes—hence concentration of savings in the higher income brackets—hence concentration of wealth. In view of these considerations we shall devote our primary attention to distributions of income.

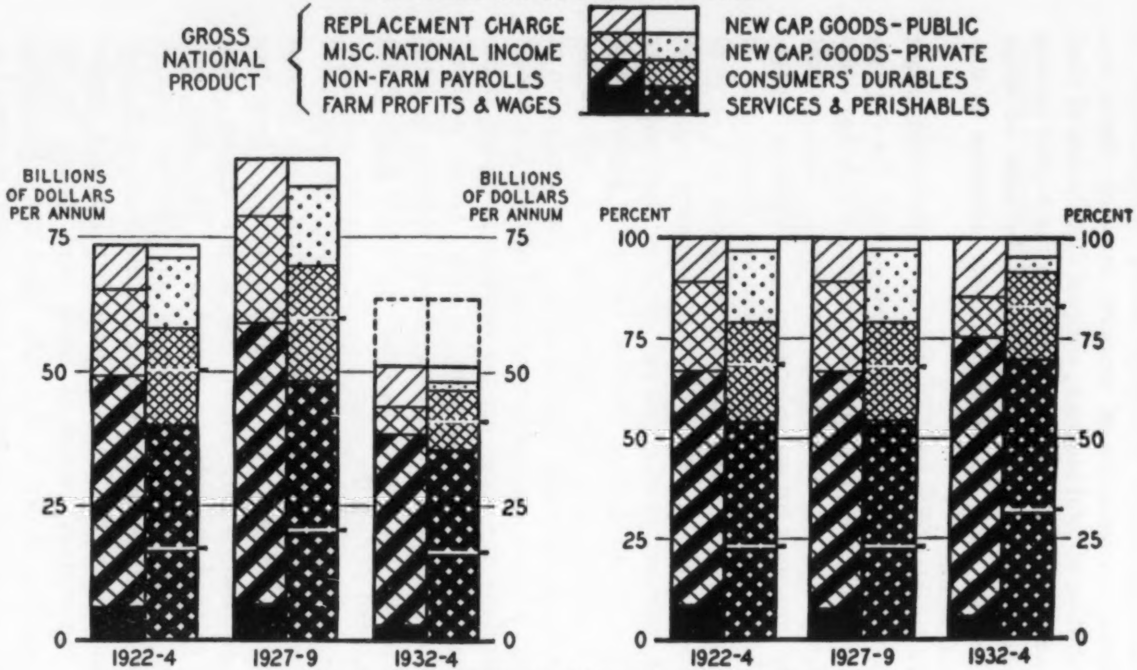
One very important step forward in our information about national income in recent years is the development of a concept, slightly more inclusive than national income, which has come to be known as the "gross national product". This concept is especially important for an understanding of business fluctuations. It has been suggested that the national income may be considered as the total value of consumed goods and services plus the increase in the national wealth produced during the year. The construction of a railroad car may represent either a net addition to the stock of railroad cars after replacements have been provided for or the replacement of a railroad car worn out in the period under consideration. The production of a freight car, when it is a replacement, and when it is an addition, is essentially the same; yet the addition is a part of the national income; the replacement is not. Gross national product includes all that the national income includes plus the volume of production needed to replace durable goods worn out and depleted during the year.

Our two concepts of national income may be paralleled by two concepts of the gross national product, each concept representing a different type of distribution. These two types of distribution are shown on a per annum basis for three selected periods on Chart 1. The data employed are based on a recent study of *National Income and Capital Formation* by Dr. Kuznets, of the National Bureau of Economic Research. The left hand bar for each period represents the various sources of funds used to pay for the goods and services shown in the right hand bar. Excluding the top section from this bar we have total national income; i.e., replacement cost must be added to total national income to get the gross national product. Two chief shares in the national income, that received by farmers and farm laborers and that

CHART 1

DISTRIBUTIONS OF GROSS NATIONAL PRODUCT

BY OBJECTS AND BY SOURCES OF FUNDS



Source: Based on Estimates of Simon Kuznets, N. B. E. R.

The right-hand bars represent the annual output of goods and services in a roughly ascending scale of durability. In order, the various segments of the bar may be defined as follows:

1. Consumers' services and perishable goods. These are divided by a white line into
   a. Services to consumers, not embodied in commodities
   b. Production of perishable goods, normally used for less than six months
2. Production of consumers' durable goods. These are divided by a white line into
   a. Consumers' semi-durable goods, normally used for six months to three years, such as automobile tires, shoes, etc.
   b. Consumers' durable goods, normally in use for over three years, such as automobiles, furniture, etc. The value of residential construction has, however, been excluded here and put in the dotted section representing private new capital goods.
3. Private capital formation. This includes net changes in business inventories, but excludes changes in consumers' inventories. It includes new residences constructed and new durable goods acquired by businesses.
4. Public capital formation. This includes net additions to gold and silver stocks, but excludes changes in other publicly owned

received by all non-farm employees, are shown separately. These two broad types of income account for the major part of the income received by all but the wealthiest part of our population. They represent more than 70 per cent of total national income. The right hand bar of Chart 1 shows the various objects for which the national income, together with funds available for replacements, was spent in each period. The bottom portion of each right hand bar below the white line represents services which are consumed as they are produced and cannot be stored. As we go upward in the bar, we deal with longer-lived goods, until we come to the two top sections, which represent the total volume of new capital goods constructed plus the increase in business inventories. It will be observed that the part of the bar below these two top groups represents approximately consumed income, although this makes no allowance for changes in the stock of consumers' goods (other than dwellings, which are classed as capital goods). If we ignore changes in consumers' inventories, the difference between the height of the bar representing total national income at the left and consumed income at the right may be taken to represent saved income.

Unfortunately the measurements provided by Dr. Kuznets are not sufficiently precise to enable us to show distributions of the gross national product by separate years. We cannot, therefore, show relationships between a period of depression and a period of prosperity in the nineteen-twenties. Of the first two periods selected each includes a year of business recession. The second period shows a marked growth in the total gross national product, as compared with the first. The increase of 20 per cent compares with a population growth of 7 per cent. Prices were fairly similar in the two periods, so that no allowance for price changes need be made.

We cannot safely assume that the similarities between 1922-4 and 1927-9, although a marked business expansion took place, typify the process of shifting from business depression to business prosperity. The sharp decline in gross value product from 1927-9 to 1932-4, the three lowest depression years, is due partly to a decline in prices. What the gross value product of 1932-4 would have been without a change in prices is indicated approximately by the dotted line. The bars in the

right hand chart show the same information as those at the left, but on a percentage distribution basis. There is a striking similarity between both the source-of-funds distribution and the objects distribution in the periods 1922-4 and 1927-9. The only change significant to the naked eye is a slight decline in the proportion of total income derived in the form of agricultural profits and wages. The 1932-4 distribution presents a marked contrast with the distributions in the other two periods. Replacement cost, being something of a fixed charge, has contracted less than other items and represents a larger proportion of the total gross value product. The farm income share has shrunk still further. Income from all sources other than farm profits and total payrolls, from which a large part of the income of the wealthy classes is drawn, has shrunk to 10 per cent of the total. In the objects distribution, consumers' perishable goods and services have come to represent 70 instead of 55 per cent of the total gross value product, while consumers' durable goods other than housing represent a slightly smaller share than in 1922-4 and 1927-9. Private new capital goods including dwellings represent only about 5 per cent of the total gross value product, a share now about equal to the expanded share of public new capital goods.

A satisfactory connection between the source-of-funds distribution of gross national product and the objects-of-expenditures distribution would involve more information about what is called the personal distribution of income (i.e., the distribution by income classes) than is now available. We know, however, that the bulk of the income of the middle and poorer classes is derived from payrolls and farm profits and that a large part of the income of the wealthier class comes from other shares of the national income. The wealthiest 10 per cent of the population receive very roughly about one third of the total money income. According to the Brookings study the poorest one third received in 1929 something like 10 per cent of the total money income. Such information as we have indicates a close relationship in the year-to-year variations between the income which takes the form of payrolls and farm profits on the one hand and the income of the poorest 90 per cent of our population (i.e., of all but the wealthiest 10 per cent). We know also that a large part of total saved income is

saved by the wealthier classes. We may expect to find, then, a rough relationship between payroll income and farmers' profits on the one hand and consumed income on the other. Consumed income was probably slightly less than would be indicated by the height of the two lower right-hand segments in 1922-4 and 1927-9 (Chart 1) because there is reason to think that consumers' stocks were accumulating during these years. Certainly this was true of automobiles. On the other hand, consumed income was probably a trifle greater in 1932-4 than the sum of the two lower right-hand segments would indicate because consumers' stocks were being depleted. With these qualifications in mind we may note that in each period consumed income is apparently appreciably larger than income from payrolls and farm profits. The excess in per cent of gross product was greater in the depression years 1932-4 than in either of the other periods. Indeed, consumption in this period actually exceeded the total national income. Corporate dividends paid out of surplus and individual capital withdrawals meant that depreciation and depletion allowances were not used to maintain the nation's stock of plant, equipment and inventories; that, in fact, the nation was living on its capital to the extent of some three billion dollars per annum.

Although a comparison of the years 1927-9 with those of 1922-4 shows no marked change in the objects distribution, the distribution for 1932-4 makes clear that private capital formation represents a relatively unstable element in our economy. I do not include public capital formation as a part of this unstable element for two reasons. (1) Public capital formation may not involve any individual saving in the ordinary sense of voluntary saving. (2) It has sometimes been suggested that public capital formation should act as a balance wheel for private business fluctuations. Let us consider these two propositions. (1) Public capital formation may not involve any individual saving in the ordinary sense. During the nineteen-twenties, public net capital formation, gross new capital goods less an allowance for replacements, amounted to eighteen billion dollars. Most of the funds for this increase were provided through other channels than investment in government bonds, for the total debt of all branches of government remained substantially constant during this period. Govern-

ment capital formation does not necessarily involve recourse to capital markets. Even if we make a generous allowance for capital sources of funds, such as inheritance taxes and principal payments on international debt account during this period, additions to public tangible assets represent a considerable volume of social saving not involving the ordinary type of individual saving. (2) It has been suggested that public capital formation should act as a balance wheel of private business fluctuations. To act in this way, public capital formation would need to be increased manyfold in a period such as the depression period, 1932-4; whereas when all branches of government are taken into account, and when price changes are allowed for, the increase in the volume of public capital formation was small. Public capital formation did something to promote stability, but not very much.

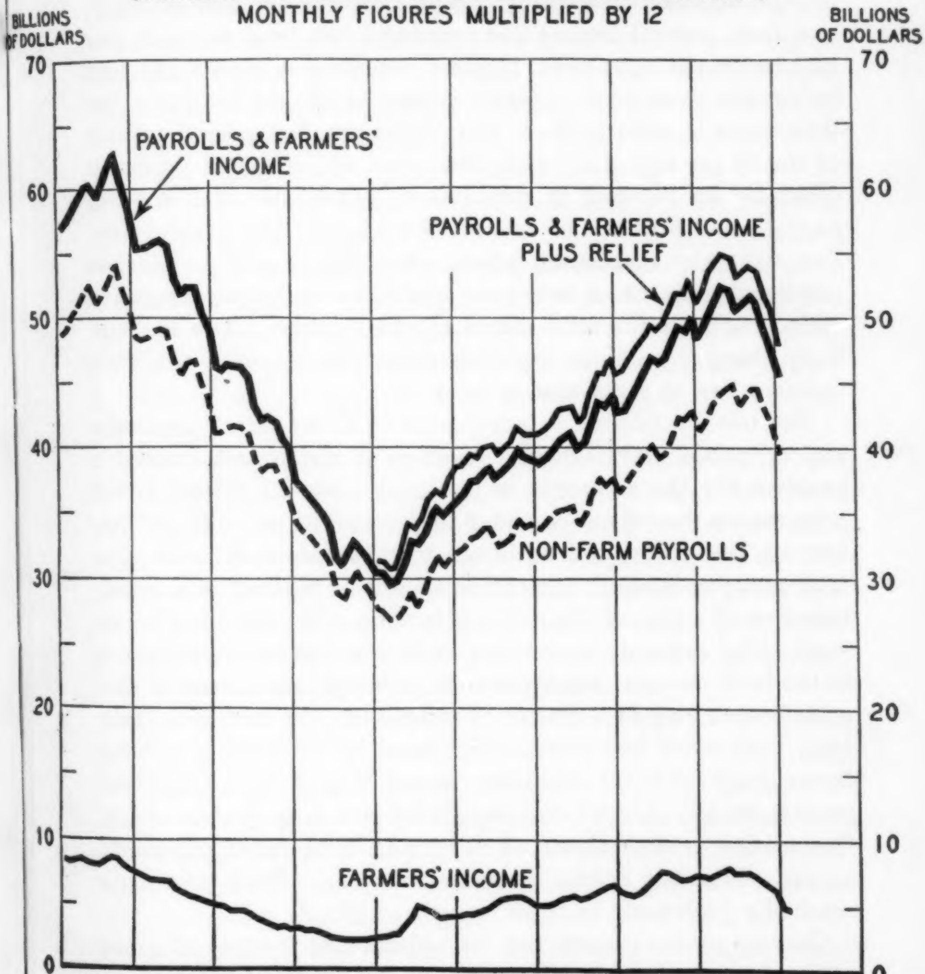
The distribution of gross national product offers a measure of the importance of the relatively unstable element in our economic system. This element, including consumers' durable goods and making an allowance for increases in the inventories of other consumers' goods, represented nearly 30 per cent of the total in the years 1922-4 and 1927-9 (Chart 1). It shrank in the years 1932-4 to around one-eighth of the nation's gross value product. The instability of this element would undoubtedly be greater were a single-year comparison made. I have not intended to imply that other elements in our gross national product are stable, but only that the instability of the fraction devoted to private new capital goods is particularly great, only that this share accentuates and possibly helps to initiate the cumulative process of expansion and contraction of business activity.

We may turn now to a consideration of monthly measures of shares in the national income and gross value product on which the bulk of our population is largely dependent—measurements representing currently the income of farmers, of non-farm employees, and of persons on relief. Comprehensive measurements of non-farm payroll income have quite recently been made available by the Department of Commerce, and comprehensive measurements of payments since January 1933 to persons in need of relief have recently been made available by the Works Progress Administration (see Chart 2). The

CHART 2

FARMERS' INCOME, TOTAL NON-FARM PAYROLLS. AND TOTAL RELIEF PAYMENTS

FARMERS' INCOME ADJ. FOR SEASONAL VARIATION
MONTHLY FIGURES MULTIPLIED BY 12



SOURCE: DEPT. OF COMM., DEPT. OF AGRI., AND W.P.A.

broken line represents compensation of all non-farm employees except persons who were given employment only on a showing of need for relief. An index of farmers' income prepared by the Department of Agriculture is shown below. It is adjusted for seasonal variations. From the summer of 1929 to the spring of 1933, both non-farm payroll income and farmers' income declined about 55 per cent. By the summer of 1937, non-farm payroll income had recovered to a level about 15 per cent below the 1929 peak, farmers' income to a level 8 per cent below the 1929 peak. Some allowance should be made for differences in price levels in 1937 and 1929, but more than half of the 15 per cent decline in urban cost of living was probably offset by an increase in population. The total of non-farm payrolls and farmers' income is shown by the heavy solid line. For 1933 and succeeding years, when the payroll of persons employed subject to a means test and direct-relief payments are added, we have the total shown by the top line. The exceedingly sharp drop since September amounts to about 6 billion dollars when on a per annum basis.

The introduction on a large scale of direct-relief payments and of public employment subject to a means test creates a problem for the estimator of national income. Direct relief presumably should not be added to the total of payrolls, profits, interest, dividends, and additions to corporate surplus to give total national income, but rather should be treated as a redistribution of a part of the national income. On the other hand, work relief certainly represents, in part at least, a contribution to the total national value product, although the extent of this contribution may be a matter of judgment. In any case, since 1933 both work and direct relief must be included in a total figure designed to represent the sources of income on which the poorest 90 per cent of our population are largely dependent. Contraction in the volume of relief and work-relief payments lagged somewhat behind business recovery. Such payments reached a peak early in 1936.

Current measurements for the objects distribution of gross national product comparable to those on sources of income are not available. A crude indication may be obtained by assuming that consumers' services and consumers' goods correspond roughly to the sum of two magnitudes: rental value of homes,

a fairly stable volume, and total volume of retail trade. Retail trade in 1937 was 60 per cent above the 1933 volume, as estimated by the Department of Commerce. This compares with a combined increase in the total of non-farm payrolls, farmers' income and relief payments of 57 per cent between 1933 and 1937.

The introduction of a vast national relief and works program into our economic system since 1933 represents a broadening of the public-works-as-a-balance-wheel idea to include other types of work beside construction—a broadening, the importance of which economists had not generally recognized until the Civil Works Administration. The contribution made by C. W. A. and W. P. A. to the balance-wheel idea suggests the proverb, "necessity is the mother of invention." An enlarged balance wheel was a necessity, if we were to meet the most extreme cases of financial distress resulting from the prolonged depression and yet avoid the demoralizing effects of a pure direct-relief program. But even this enlarged balance wheel is still clearly a diminutive item as compared to the total gross national product.

Thus far we have devoted our attention largely to the relationships among the various types of distribution at the lower end of the scale, to relationships among such incomes as payrolls and farm profits, the incomes of the poorer and middle classes and the expenditures of income on consumers' goods and services. If existing information is inadequate to trace these relationships, its shortcomings are still more acute in dealing with relationships at the upper end of the scale.

The difficulties involved in these relationships at the upper end bring us back to a proposition with which we started; namely, that the total national income conceived as the sum of the distributive shares (payrolls, interest, profits, dividends, and additions to corporate surplus) and the total national income considered as the sum of consumed income and additions to national wealth should be equal. We may state this proposition differently. The total of the distributive shares, payrolls, etc., plus an appropriate allowance for replacement of wealth used up, should equal the total value of goods and services produced. Still another way to phrase this proposition is: Total investments equal total savings; that is, the increase in our

national wealth, including our net external credit, is equal to the increase in equities held by all residents of the country in that national wealth. I am aware that a somewhat heated debate has raged over the question whether savings and investment are equal. But I believe the present trend of opinion is to the view that savings and investment, if consistently defined, are equal; and, similarly, that total national income, conceived as total distributive shares, and total national income, conceived as consumed income plus the increase in national wealth—if these two totals are consistently defined—will be equal. However, consistency of definition is not easy to achieve in terms of our existing information. Indeed, the national income estimates of Kuznets shown on Chart 1 exclude items which some of us are inclined to regard as a part of the national income; namely, such gains as were realized in the stock market in 1928 and early 1929, gains which were widely supposed to have been spent in part upon consumers' goods.

If we attempt to compute saved income in terms of the savings of individuals, as we did the Brookings study for the year 1929, not only may we omit some government saving of tax income, but also—and this may be much more serious—we may include realized capital gains. The result of this inclusion in the Brookings study was an estimate of total savings for 1929 of about 20 billions of dollars, as compared to an indicated saved income on the basis of Kuznets' figures including the increase in the stock of consumers' goods of slightly over 10 billions of dollars. To the individual, capital gains when realized are a form of income which may be either spent or saved; collectively such gains can add nothing to the funds available either for consumption or for new plant and equipment. No one can realize a capital gain of $1000 unless someone else invests $1000 more in the existing physical stock of wealth than was invested in it before.

I shall mention only two other difficulties in comparing savings and investment, and also in comparing the gross national product conceived as the sum of distributive shares and a replacement allowance with the gross national product conceived as a total of the production of consumers' goods (other than dwellings) plus consumers' services plus capital goods produced.

(1) There are major difficulties in identifying the volume of investments by ultimate investors in new capital issues with the value of tangible assets which such issues finance. The investor pays one price; the issuer receives another. Refunding issues and intercorporate duplications must be eliminated. Moreover, we must make an allowance for a volume of new issues equal to old issues retired without refunding.

(2) Existing business accounts may require important adjustments. Additions to corporate surplus and profits of unincorporated enterprises are computed on the basis of prevailing accounting practices. According to these practices provision is made in depreciation and depletion charges for keeping investment intact in a dollar sense. Replacement will be fully and not excessively provided for only if the prices of capital goods remain constant. Thus if our national income accounts are to balance when prices are changing we must in effect substitute replacement accounting for depreciation accounting. Prevailing accounting practices also, as Dr. Kuznets has pointed out, include in profits an item which may fairly be called "unrealized capital gains and losses due to changes in the market value of physical inventories". If our national income accounts are to balance, an adjustment must be made for these as well as for other capital gains and losses.

I mention these various difficulties because I believe that their recognition opens the way to investigations which should shortly give us a much fuller understanding of the relationships between individual and corporate savings and depreciation and depletion allowances on the one hand, and total new capital goods on the other.

Not only are existing measurements incomplete for purposes of tracing the relationships between saved income and new capital goods in retrospect, but also comprehensive current measures at the upper end of the scale are still unavailable. We have heard recently a good deal about the importance of additions to corporate surplus and of security flotations as sources of funds for new capital. I do not underrate these sources. But we should not overlook the fact that automobiles and housing are important forms of new capital goods not largely dependent on these sources of funds, and that the production of these goods as well as of others fell off sharply in

the latter part of 1937. We should not forget, also, that investments of business owners in unincorporated enterprises are still a major source of capital funds. More important than all these, depreciation and depletion charges are a source of funds for new capital goods, in so far as securities are not retired dollar-for-dollar with the increase in depreciation and depletion reserves.

Although a comprehensive measurement of the recent volume of new capital goods is not available, some comments are possible. The level achieved by automobiles as an item in the total of private new capital goods in 1937 was exceptional. Unlike most other durable goods the level was less than 10 per cent below that of 1929 if we omit exported vehicles (which do not count as capital goods for this purpose). For an over-all picture of gross capital formation we should, of course, include increases in business inventories. These also were in 1937 at levels quite comparable with those of 1929.

If we take a longer-run view, we may note that an examination of Kuznets' estimates of net new capital goods after allowance for replacements tends to confirm a position to which a variety of other sources of information contributes. Our stock of plant and equipment was low after the war. It grew far more rapidly than population during the nineteen-twenties. It reached a peak in 1930 (the housing peak came somewhat earlier). It declined during the prolonged depression, then rose again, and is today probably at about the level of 1930. Although at best recovery during the next few months may be slow, it is difficult to avoid the conclusion that if, as, and when recovery gets under way again, that relatively unstable element in our gross national product, the volume of private new capital goods, is likely to show a marked expansion to meet an accumulated deficit. Although such an expansion may offer a basis for a period of recovery and prosperity lasting several years, we must not forget the possibility of a subsequent contraction.

The immediate future appears to promise rapid progress in our statistical understanding of the relationships between savings and new capital goods. Perhaps we may hope that that improved statistical understanding will implement new social techniques for the stabilization of the unstable element in our gross national product.

Remarks by the Chairman

Chairman Mitchell: One of the interesting developments in business administration during the last generation has been the increasing frequency with which corporations have employed statistical experts as members of their regular staffs. This practice has benefited the science of statistics; for statisticians who are engaged day by day in applying their technical methods to the problems of business life have opportunity to get a realistic understanding of what figures mean that their academic colleagues often envy. On the other side they develop perforce a sense of responsibility, which I fear their academic colleagues are glad to be spared.

One of the most notable of the statisticians who has applied his energies to business affairs is Mr. John Scoville, whom I have the honor of introducing to speak upon " Technology and the Volume of Employment ". The industry in which he has worked presents our most striking example of rapid technological progress combined with increasing volume of output and employment. These are matters of which Mr. Scoville can speak with intimate knowledge derived from personal participation in the development of a great enterprise. Mr. Scoville!

TECHNOLOGY AND THE VOLUME OF EMPLOYMENT

JOHN SCOVILLE
Chrysler Corporation, Detroit

I would like to start this discussion by asking three questions. Can the standard of living of the American people be raised by destroying existing wealth? Can the standard of living be raised by decreasing production? Can the standard of living be raised by doing useless work? You say, these are foolish questions. No one can believe that we can become more wealthy by destroying wealth, that we can consume more by producing less, that we can promote our welfare by labor which is barren and yields nothing of value! Yet millions of people do believe these things; these tenets of the philosophy of scarcity are widely accepted, promulgated in legislatures and incorporated in the laws of the land.

At the present time, automobile production is at a low level, and on every side we hear people clamoring for the destruction of the older cars now in use in order to revive production. The following quotation is from the February Bulletin of the National Automobile Dealers Association: " Industry Junking Plan a Necessity! Replacement market requires systematic elimination of obsolete used motor vehicles to provide outlet for new automobiles. 11,000,000 out-moded cars and trucks, now in use, offer impregnable resistance to further penetration." In Brazil thousands of tons of coffee are destroyed annually. We plowed up cotton and killed little pigs by government decree. But even more popular than the movements for destroying existing wealth is the drive to slow down the production of goods and to reduce the supply of goods and services. Government enacts tariff laws to restrict the importation of goods from abroad, in order that goods may be scarce. Subsidies are paid to farmers who will restrict their crops, in

order that farm products may be scarce. There is agitation for laws to restrict factory work to 30 hours a week to make labor scarce. Labor unions clamor for shorter hours, slower speeds, fewer apprentices, craft monopolies — to make labor scarce and to slow up production. In the professions unduly long courses of study are prescribed in order to discourage new entrants.

But the apostles of scarcity are not content with the destruction of wealth and a decline in the production of new wealth; they also advocate that labor shall be barren, that men shall work without producing anything of value. If in a factory, 100 hours of labor are used to produce goods which could be made with 50 hours of labor, then I say that 50 per cent of this labor is barren. Strange as it may appear, there seems to be a considerable sentiment in this country in favor of useless labor. On March 14, 1934, local union No. 106 from Harrisburg, Illinois, sent a letter to President Roosevelt from which I quote: "Remove the loading machines from the coal mines, complete all public work with man power, take the tractor off the farms, go into the various industries and remove enough labor-displacing machines to make employment for labor." In February 1936, Congressmen solemnly listened to arguments on House Resolution 49 in which the Secretary of Labor was requested (1) to compile a list of the labor-saving devices put in operation after December 31, 1912, which are still in use, (2) to estimate the number of persons now unemployed by reason of these devices, (3) to estimate how many more persons would be employed if these devices were eliminated.

The Congressman who introduced this resolution said: "You will note that I am trying to ascertain the number of men that each and every machine supplants in order that each machine may be taxed according to the man power that it supplants, if it is necessary to place a tax. If one machine supplants one man you might tax it, as an illustration, 10 cents or $1.00, but if another machine supplants 20 men, it should be taxed 20 times as much." The purpose of taxing labor-saving machines is to reduce the amount of unemployment. But there is every reason for thinking that this aim would not be realized. Labor-saving machinery is used in manufacturing, in transportation

and in agriculture. A tax on labor-saving machines would increase the cost of food, clothing, and practically everything else. At the higher costs, fewer things made by machines would be bought and fewer of these things would be made. Suppose that 4,000,000 automobiles are bought in a year at an average price of $800. Now suppose that the labor-saving devices used in manufacture were taxed so that the automobile would sell for $1200. This would reduce the annual output so much that employment in automobile factories would decline. It is almost certain that a tax on labor-saving machines would cause a decline in employment.

There is a fundamental fallacy in the thinking of those who advocate the taxing of labor-saving machines, a compulsory 30-hour week, minimum wages and maximum hours and other schemes for improving the condition of labor. The fallacy consists in the assumption that there is a demand for a fixed total amount of goods and services, that there is a demand for some fixed amount of labor and that the only problem is to parcel out this labor demand among the workers. Of the fifty million gainfully employed in this country, only about eight million are engaged in manufacture. Suppose that the wages of the eight million people engaged in manufacturing were doubled and that the prices of manufactured articles were thereby nearly doubled. Then the eight million workers in factories could buy more manufactured products; but the forty-two million, at the higher costs, would buy fewer manufactured products and the total output of our factories would decline and many of the eight million factory workers would lose their jobs. If this experiment could be performed, we would have proof that the purchasing power theory of prosperity is fallacious and that unemployment results when wage rates in certain occupations are too high. It is a popular fallacy that factories pay wages. Factories are labor brokers, buying labor for the account of others; they collect money from consumers and pay this money over to workmen. The just wage rate is obtained when the income of the factory worker is in balance with the income of the consumer who buys the product. It is a popular fallacy that prosperity comes from high money wages. But the facts are that any deviation, up or down, from the

just wage lowers the standard of living. The just wage tends to be established in a competitive society, free from all forms of coercion, restriction and regulation in which no group is able to use the power of government to exact tribute from the other groups.

But before we tax machines to promote useless labor, let us consider the alternatives. We might compel a manufacturer who installs a labor-saving device to place beside it an exercising device, say a rowing machine or a punching bag, so that the worker could operate the machine for an hour and then spend the time saved by the labor-saving machine working on the rowing machine. This would accomplish the desired result of giving employment without any useful production of goods.

Another scheme that would accomplish similar results would be to compel manufacturers to lower the durability of goods. Suppose that we make it unlawful for a tire manufacturer to make tires that will last more than 5,000 miles. Compel car manufacturers to make automobiles so poorly that they will fall apart after three or four years. Compel builders to make houses so poorly that they will tumble down after fifteen years. Many avenues are available for the promotion of useless work.

In November 1937, a Congressman from Texas said: "I am introducing a bill today—not a bill that I would be willing to have passed, but a bill simply presenting for consideration the principle, because I would not undertake to write out in detail a bill unless we want to do something about it. I am introducing this bill today that will stop for the time being the bidding on the part of the Federal Government for some more idle people. I am offering the bill to stop the issue of patents on the part of the Federal Government in labor-saving devices." It seems to me the Congressman is getting into action too late. He should have been here a few thousand years ago when our ancestors domesticated the horse. Think how many men were displaced when our ancestors began to haul logs around with horses! Is it not true that Watt and Arkwright and Fulton and Howe and Edison and all the other inventors have dealt such devastating blows at human bondage that only pitiful remnants of sweat and toil can be saved from the wreckage? Is it not too

late to transfer the crown from Emperor Brains to Old King Brawn?

But has the Congressman considered the alternatives? Can we not set aside some large area, let us say the state of Texas, and in this state forbid the use of mowing machines, automobiles, telegraphs, telephones, railroads, electric motors, sewing machines, and all other labor-saving devices. Then let all those who want to do things the hard way emigrate to this state and try the experiment. Let the man in El Paso who wants to send a message to Texarkana get a messenger boy on a bicycle to deliver the message—no, the bicycle would save labor; let him take the message on horseback—no, the horse saves labor; well, let the boy carry the message on foot like a Marathon runner. Then, if the people there enjoyed the plan of doing more work in order to have less, there might be an irresistible demand from the other states to extend the system. I understand there are still areas in North America where wagons are drawn by oxen and the housewife spins her own yarn and weaves the cloth. Perhaps those who object to labor-saving devices could be induced to move to those more favored regions where the handicraft methods still prevail! The Navaho Indians have been very successful in resisting the ravages of the machine age. Perhaps they would adopt into the tribe a limited number of white brothers who yearn for the primitive ways of life!

Now this idea of promoting useless work is nothing new; the Egyptians used the idea very successfully in building the pyramids. Today we still build pyramids, some of which have a small residuum of utility. This great movement for the promotion of useless work may break out in many forms. Over two hundred years ago the workmen smashed up the machines for spinning and weaving. Today we pass laws to compel the employment of extra men on trains and street cars. We prevent the use of spray guns in painting buildings. We demand that the brush used in painting shall be narrow. I read some time ago that the United States Senate refused to have the nation's capital desecrated by such a devilish contraption as a dial telephone.

Some time ago I was visited by a research man who wanted me to help him make a study of the increase in the productivity

of labor in the automobile industry. I told him that whenever a factory introduced a new machine, it was always with the purpose of making the article better and more easily. So far as I knew, we never knowingly put in machines to make it more difficult to make things. I was sure that we did not need a federal investigation to prove that industry through the years has been successful in making things better and with less effort. I pointed out various difficulties, one being that the cars we make now are much superior to the ones we used to make. How could we possibly analyze the technological advances, from the mining of copper, the digging of iron ore, the production of rubber, all the way along through the steel mills, the tire factories, the paint factories right through to the finished car? How could we do it? But suppose we could overcome the difficulties and find out how much the productivity of labor had increased, what use could anyone make of the information after it was compiled? I think he said it would be handy information to have, that some one might call for it. Now I see why the information is needed. The man who buys the car pays a license tax, an excise tax, and often a sales tax. If he wants to run the car, he pays a tax on gasoline. The workmen who make the cars pay a tax on their wages. The corporation pays a property tax, a profits tax, a tax on undistributed profits, a tax on surplus and a payroll tax. The stockholders pay a tax on the dividends. There was only one thing left to tax—the machines that were used in making the cars!

In some future year, I can hear a tax inspector inquiring of a foreman: "How many hammers are used in this department?"

"We have 10 hammers in all."

"How many of these hammers were installed since 1912?"

"All but one, inspector. This old hammer in my hand I bought 30 years ago."

"All right, no tax on that. The other 9 are taxed 50 cents apiece."

"Why are they taxed, inspector?"

"Well these hammers save labor, don't they? You don't have to use a hammer to drive a nail. You could drive these nails in with a big stone. That would create more employ-

ment. It would take longer to drive the nails with a stone, wouldn't it? And besides, it would take some time to find the stone."

"Would we have to pay taxes if we drove the nails in with big stones?"

"Of course not. When you fellows get back to the stone age, there won't be any more taxes."

Have the advocates of a tax on labor-saving machines thought of the farmers? A modern combine would displace hundreds of men cutting grain with a sickle. A modern threshing machine would do the work of more than a hundred men threshing grain with a flail. A century ago about 75 per cent of our people were farmers. Today only about 20 per cent are farmers. Improvements in agricultural technology have driven about 64,000,000 people off the farms, and have thrown about 16,000,000 farmers out of work. Of course these displaced farmers did not go on relief. They went to the cities and built the automobiles, radios, farm machinery and other manufactured articles, printed the newspapers, strung the telephone wires. Yet there are those who would bite the hand that feeds them, who would pull down the ladder by which men have risen from the condition of peasants to the comforts and conveniences of modern life.

In any discussion of technology and the volume of employment, it may be well to consider what these words mean. I understand technology to mean all those inventions, discoveries and methods which give us new products or which enable us to improve old products or to make them with less effort. But what do we mean by employment? Do we mean all human effort directed to the satisfaction of human desires? If so, we must include the work done by the millions of housewives who cook the food, tend the children and mend the clothes; we must include the work of the great grandmother who knits a sweater and of the child who feeds the chickens. On this basis there are over 80,000,000 people in this country employed in some kind of work. Now if a woman does her own housework, she is not gainfully employed, but if she works in an office and hires a maid to do the housework, they are both gainfully employed. So if we omit the housewives and the young and the old

workers in the homes and on the farms, we have a residue of about 50,000,000 who are called the gainfully employed. Most of the farmers, small shop keepers, physicians, lawyers, etc., operate their own businesses; they do not work for wages. If these independent operators are eliminated, we have about 35,000,000 left who work for wages, in money or in kind. From these we can eliminate the school teachers, salesmen and clerks in stores, government employees, carpenters, masons and others in the building industry, domestic servants and a host of others, and we have a residue of about 8,000,000 who work in manufacturing establishments. It is this small residue which is usually considered when we talk about hours, wages and the trend of employment. In 1929 the number of persons employed in manufacturing was about 8,785,000 and in the fall of 1937 this number was about 8,100,000. The November census of unemployment indicated about 10,000,000 people out of work. Since factory employment in 1937 was only about 685,000 less than in 1929, it is evident that these 10,000,000 unemployed persons have not been discharged from factories and cannot expect to get work in factories. The number of unemployed in November 1937 was a million greater than the maximum number ever employed in factories. Since factory workers are only about one sixth of the gainfully employed and only about one ninth of the total workers, it is evident that statistics on factory employment give a very incomplete picture of employment.

Another difficulty in defining or measuring employment is that very few persons are fully employed. A clerk in a store or an attendant at a gas station may spend half of his time waiting for customers. Farmers do very little work in the winter or on rainy days. Many teachers are on vacation for several months of the year. The stenographer may spend considerable time in gossip and novel reading. The executive may spend considerable time in telling funny stories. Most of the persons classified by the census as employed are not fully employed. Many of them have jobs, but they do not work very hard. Then there are the faithful workers who do not accomplish much because they lack the necessary skill or intelligence, or do not have proper equipment. The output of many

workers is low in quality and quantity. Some employed persons are engaged in criminal or anti-social work. Others who are employed are social parasites engaged in useless work; and, of those engaged in useful work, some are doing things of great value and others are doing work of negligible value.

So when we talk about employment, we do not know what it is we are talking about. The concept is a very nebulous one, and it is hard to measure something which we cannot define. If we define employment as the useful work done, then measures which we have greatly exaggerate the fluctuations in employment. From 1929 to 1933 the factory employment, according to the U. S. Bureau of Labor Statistics, declined by about 40 per cent. But the farmers worked about as hard and produced about as much in 1932 as in 1929. The housewives probably do more work in depression years. They do the washing at home instead of sending it to the laundry, they bake bread instead of buying of the grocer, they make dresses instead of buying ready-made dresses. The workman discharged from the factory may be spending his time in painting his house, making a garden or repairing his automobile.

The total hours of work never rise as high or fall as low as the published statistics indicate. Likewise, the published figures on industrial production exaggerate the fluctuations in the work done. These figures show the output of certain mines and factories. They do not include the output of small establishments, the production carried on in the homes and on the farms. They do not show the work done by service industries, merchants, professional people and government employees.

I believe our statistics on unemployment give an exaggerated picture. When I was a boy, there were many men in the village who did not do much work. They did odd jobs, they were assisted by relatives and they managed to get along. They did not starve. Today, many people similarly situated are on relief. They are analyzed by age, sex, color and marital status. They are counted, classified, analyzed and surveyed. They are an important political force, the wards of a paternalistic government and the raw material for scholarly dissertations.

Let us take an imaginary trip to an imaginary island—somewhere in the South Seas—an island where the people live on fish. As we leave the ship and walk into the village, we find many of the natives with emaciated bodies and listless sunken eyes. Much of the population is in dire poverty and a casual check-up shows that about one third of the natives are ill-fed. We go to one of the oldest inhabitants to seek the cause of the distress. He tells us that in years gone by the natives were prosperous and happy, and that the able-bodied worked every day at fishing. But an inventive native had discovered that by putting several fish hooks on each line, the daily catch had been doubled and trebled. Not being able to eat all the fish, the natives had built huge warehouses, and these warehouses were bulging with unmanageable surpluses of smoked, pickled and dried fish. The old native said the island was suffering a great depression due to several causes! First, consumption could not keep up with production, they were unable to consume as many fish as they could catch; second, there were huge surpluses of fish in the warehouses, which kept the fishermen from their jobs of catching more fish; third, there was a general overproduction of fish; fourth, the improved technology had prevented the fishermen from working as many hours as formerly in supplying themselves with fish, thus creating a great problem of unemployment.

Having recently come from the United States, we can readily understand the calamity which had overtaken this island. We asked the old native what remedial measures were being undertaken. He said that a number of bright young men had been studying the problem. First, they made a survey. They discovered that the multiple hooks had increased the average hourly catch from 1.765 pounds to 3.498 pounds; that the average numbers of hours per day spent in fishing had been reduced from 8.274 to 5.347 and that 33.333 per cent of the people could not get enough fish to eat. After this factual analysis had been made, a program for solving the problem was easy. It was decreed that no man should fish more than four hours a day; that any fisherman who would agree to limit his catch to two pounds a day would receive six large fish a month as a benefit payment from the government; that any fisherman who

used more than one hook should deposit one fish per day in a government warehouse for each hook used in excess of one; that every householder must keep ten cats to enable the consumption of fish to keep up with production; and that any citizens who did not like to fish could get their fish from the government warehouse.

I understand that a huge sum has been expended in trying to discover how much productivity in this country has been raised in recent years through technological advances. I am not greatly interested in the statistics of this problem. I know we are on a one-way street—that when we find an easy way of doing something we never go back to the hard way, unless we are compelled to. I would like to see technology advance so that all the things we need could be produced in abundance by a self-repairing automatic machine that would require no labor whatever. Under these conditions employment would be zero and everyone could have all he wanted, for the goods produced would cost nothing. No one would want to be rich, for the goods he accumulated would have no value. I do not believe that labor is something to be encouraged or fostered or promoted. My own Utopia would be a workless world. I do not believe that labor-saving machines create employment. That would be a contradiction in terms. Labor-saving machines give us either more goods or more leisure. In this country, labor-saving devices have given us both more leisure and also more things to consume; and more leisure and more wealth mean a higher standard of living.

Back in 1910 the work week in Detroit was 60 hours. In a few years it was shortened to 58, to 54 and finally 50. Now it is about 40 hours a week. This shortening of the work week was the result of technology and better management and not of legislation. Many people believe that technological advance causes unemployment, and most people have exaggerated notions of the extent to which machines have increased the productivity of human labor in recent years. Some of these productivity studies take 1920 as the base year and show a great increase of productivity from 1920 to 1922. But 1920 was a year when labor was scarce, independent and inefficient. In 1920 the newspapers carried campaigns for increasing the

productivity of labor. In Detroit, factories would send busses to rival plants to entice workers and persuade them to change jobs. Labor was scarce. Then came the chastening effects of the depression of 1921. In 1922 labor was more efficient. But from 1922 to 1935, a study directed by David Weintraub indicates that the productivity of wage-workers increased by about 12 per cent or about 1 per cent a year and the productivity of all workers, including the self-employed, increased about 5 per cent in thirteen years. Labor-saving machines may cause the temporary unemployment of certain persons, but I know of no evidence to prove that labor-saving devices cause general or protracted unemployment. Technology has made enormous strides in the last 40 years; yet census figures show that the percentage of the population gainfully employed was 38.3 in 1900, 41.5 in 1910, 39.4 in 1920 and 39.8 in 1930. If labor-saving devices cause unemployment, then we should have the greatest unemployment now in the states which have the highest percentage of the gainful workers in manufacturing and mechanical pursuits. But according to the census of the unemployed made in November 1937, in the 16 states with the highest percentage of the workers engaged in manufacturing, the unemployed are 16.3 per cent of the gainful workers in these states in 1930; and in the 16 states which had the lowest percentage of the workers engaged in manufacturing, the unemployed amount to 16.8 per cent of the gainful workers reported in 1930. In the states where 36.9 per cent of the workers are engaged in manufacturing, only 16.3 per cent are unemployed, and in the states in which only 16.2 per cent are engaged in manufacturing, 16.87 per cent are unemployed. The states showing the largest percentage of workers unemployed in November 1937 are Montana, Kentucky, New Mexico, West Virginia, South Dakota, Oklahoma and Pennsylvania. Comparing the number of unemployed in November 1937 with the unemployed in 1930, we find that in the 16 states most highly industrialized, the number of unemployed has doubled, and in the 16 states with the least manufacturing, the number of unemployed has quadrupled. If machines cause unemployment, we would not expect to find the least unemployment in the states where there is the most machinery.

Technology is a much broader term than labor-saving machines. When the camera was invented, something new was given to mankind. Now all the people engaged in making cameras, photographic materials and moving pictures are giving us something that did not exist before. The automobile did not give us something new; we could travel before the automobile came. But with the automobile we travel a lot more. The automobile enormously increased the mobility of people. While there are fewer people employed on railroads than were employed twenty years ago, there are many more people employed now in transportation.

Over in Russia they have a government organized for the purpose of improving the lot of the common people; and they have been working feverishly to build more and more machines. They apparently do not share the views of our own parlor intellectuals, who, sitting in chairs made by machines, wearing clothes and shoes made by machines, and smoking cigars made by machines, write reports on paper made by machines, to be printed by machines and distributed by machines, in which they discourse on the evils of the machine age.

You know, if machines are really evils to be restricted, taxed and condemned, then the individual who buys these machine-made products is not without guilt. If there should be legislation to restrict the use of labor-saving devices, the government might find its own operations considerably hampered. It might be necessary to throw out the stamp-cancelling machines from the post offices, the tabulating machines from the Bureau of the Census, and to write the Congressional Record on parchment with a quill.

In the pamphlet on *Unemployment and Increasing Productivity* by David Weintraub the statement is made that the volume of goods and services produced per capita in 1935 was only 96 per cent of the figure for 1920. This does not mean that we had a lower standard of living in 1935 than in 1920. Comparing 1935 with 1920, we had in 1935 an increase of 22.5 per cent in school enrollment, an increase of 161 per cent in college enrollment, an increase of 185 per cent in the number of motor vehicles registered, an increase of 137 per cent in the volume of life insurance in force, an increase of 31 per cent

in the number of telephones in use, an increase of 128 per cent in the production of electricity, and an increase of 2450 per cent in the production of rayon. In 1935 we had more vacuum cleaners and electric washers in homes, more radios, more tractors and combines on the farms. We were eating more citrus fruits and more green vegetables in the winter.

It is important to note that the figures on national income or productivity do not measure the well-being of the people or the level of consumption. Suppose a new school house is built in a city. The cost of this building becomes a part of the national income for that year, but it may take fifty years to utilize or "consume" this building. In 1929 there was a record production of automobiles, which increased the national income in 1929, but these automobiles have not yet been "consumed". The figures on national income exaggerate the fluctuations in consumption. If we could make our buildings, bridges, highways, furniture, motor cars and farm machinery so that these goods were indestructible, then we could have a rising standard of living accompanied by a decline in production and a decline in national income.

In 1929 this country entered a great depression. Many volumes have been written on industrial depression. The causes are complex and obscure. I am not enough of a scholar to understand all the causes of these great social and economic catastrophes. In my opinion, we never really emerged from the great depression which started in 1929. After 1932, production and employment increased. By the middle of 1937, most of the factors were present which are supposed to insure prosperity. Interest rates were low, the banks were bulging with deposits, wages had been raised spectacularly and the purchasing power of labor was high, the security exchanges were under supervision, farm prices were in line with industrial prices, crops were bountiful, farmers were being regulated and subsidized, collective bargaining was being extended by law. Then business went into a tail spin and in the past four months we have witnessed the most violent decline in business activity ever experienced in this country. The number of unemployed today is about as great as five years ago, at the depth of the depression. It would be folly to assume that several million

people lost their jobs in the last few months because of the introduction of labor-saving machines. Steel workers lost their jobs because we reduced the output of steel; automobile workers were thrown out of work because people bought fewer cars. Employment is down, not because machines are doing work formerly done by man—but because the work just is not being done.

If a farmer did not plow his fields or cut his hay, he could not blame his idleness on the plow or the mowing machine. Sometimes I think the hue and cry against machines is for the purpose of obscuring the real causes of our distress. By no stretch of the imagination can we conclude that enough labor-saving devices were installed from 1929 to 1933 to throw 12,000,000 people out of work. And if machines were not the cause of the great number of unemployed in 1933, it is not likely that they caused the continuance of much of that unemployment from 1933 to now. The unemployment of the last eight years obviously has not been caused by labor-saving devices; and the progress in the arts and sciences, in the increased standard of living, in the humanities, in increased general health of the people, in fact all the progress in material things that have characterized this age, rests essentially on the industrialism which is its outstanding feature. The progress of the industrial age rests on the greater diversification of labor and the use of more elaborate tools and machinery which have increased productivity—in other words, saved labor. It is not the purpose of this paper to discuss the factors which from time to time have marred the progress made in this industrial age, but in our attempt to cure the social ills, we should not kill the goose that has laid the golden eggs. If our society is sick, it is for other reasons than the conquest by man of the forces of nature.

Remarks by the Chairman

Chairman Mitchell: The concluding topic of the afternoon's program, " Competition or Monopoly ", is one that has been debated for a generation or more as actively as any other economic topic—debated often with more vigor than insight.

Among the professional students of economic problems there is no one who has devoted more genuine thought and keener analysis to the effects produced by monopolistic and competitive practices than Professor Frank A. Fetter—a professor *emeritus* who still speaks with the force and charm that made him a famous college debater in his undergraduate days. Professor Fetter!

COMPETITION OR MONOPOLY

FRANK ALBERT FETTER
Professor of Political Economy, Emeritus, Princeton University

Relativity of Competition and Monopoly

MUCH confusion in the discussion of this subject results from the failure to recognize the looseness of the terms competition and monopoly as used in connection with many practical business situations. The competition we are talking about is *fair* competition, carried on in the light of day and obedient to the rules of the game laid down by society as most in harmony with the public good. It is not unregulated laissez faire. It is not pseudo-competition, fake competition, monopoly dressed in the robes of competition, and merely paying to competition the shallow compliment of imitating its gestures and phrases.*

Another great source of confusion in the discussion of this subject would be removed if it were recognized that competition and monopoly are always more or less qualified, modified and intermingled in any real market situation. It is hardly possible to discover in fact or to conceive of absolute monopoly in the sense of unlimited power to set any price desired. Always there are some practical limits to the power to induce or to compel the consumer to go on buying at a higher price. Always there is the limit of " what the traffic will bear ". At almost every point as prices are raised, substitution of goods of different quality or kind increases, and buyers cease to buy the same goods in the same quantities as before. Also potential competition is stimulated to take the risks of breaking into the monopolistic paradise. Such competitors it is fashionable to call " chiselers " since, in some business circles, it has become " unethical " to compete against monopoly.

* See further the writer's paper " The Truth about Competition ", printed in *The Annals of the American Academy of Political and Social Science,* January, 1933; also *The Masquerade of Monopoly,* chapter 19, " Markets and Competitive Prices ".

It is often argued in and out of court as if evidence of any sort of competition, however weak and restricted, proves that there is no monopoly whatever in an industry or in a practice. The truth is that monopolistic power is never unlimited, but even a quite moderate degree of it may be immensely profitable to sellers and very burdensome to the public.

Recent Weakening of Competition

No one with knowledge of present conditions seriously denies that fair competition has been gradually weakened in the last three quarters of a century, and monopoly control over prices, wages and markets has been greatly enlarged. To the free movement of individual and independent enterprise and of price-making forces many hindrances have been interposed. (1) By political action barring some men from doing perfectly honest sorts of things which they would like to do. Notable examples are tariff legislation and the growing mass of special state licensing provisions in many occupations. Although such measures are always advocated in generous terms as necessary to protect the health or welfare of the buying public, they are, with few exceptions, adopted because of political pressure from sellers selfishly seeking higher wages or profits for themselves. (2) Hindrances to free competition have arisen from changing technical conditions, as in the public utilities. So expensive is the local physical plant required to deliver the services of these industries to the customers, and so wasteful is the duplication of such facilities that the public can only recognize such industries as "natural" monopolies and attempt to control them as best it can—not very successfully as yet. (3) Ever greater have grown the private and corporate hindrances to free competition that are set up by means of mergers, agreements, and newly devised business practices, largely made possible by recent changes in the law of industrial corporations. Everyone here could multiply illustrations of these increasing hindrances to competition.

Competition versus Monopoly as Public Price Policy

Which is preferable as a *general* public policy with respect to enterprise, markets, and the determination of industrial prices, wherever and whenever possible of realization, competi-

tion or monopoly? Can there be the slightest doubt? The answer must be: competition, free and fair. Everyone, even the most ardent monopolist, heartily agrees that competition is a good thing in the production and sale of everything that he buys; he prefers monopoly only for himself in the sale of his own products. One must often wonder whether the members of the National Society of Lobbyists have entirely lost their sense of humor when they appeal to the government for tariffs, subsidies, land grants, financial reconstruction loans, and special privileges or charters of many kinds and in the same breath denounce every grant of public favors to humble citizens as subversive of the Amercian spirit of independence. Our troubles regarding public price policy might begin to vanish if more men in influential positions in business and organized labor could realize that we cannot go on trying to play the business game with two sets of rules—one for the weak and another for the strong, one for our organized pressure groups and another for other folks less effectively organized. That can hardly be called a game.

The reasons why fair competition is better than monopoly as a general and long-run social policy are pretty generally understood and conceded, the more so since our recent tribulations. Even those who have done, and are doing, most to weaken the competitive system admit in the abstract that fair competition makes for enterprise, plenty and progress, whereas widespread monopoly tends toward scarcity and ultimate stagnation. That means that competition is not only a prerequisite of a rising standard of living, but is an essential condition for maintaining even the standard already attained. The apparition of the totalitarian states has shown how closely related is the condition of free enterprise and fair competition to political and spiritual freedom. Instead of looking upon our democratic society as a finished work which will endure forever without further effort on our part, we have suddenly been made to realize how imperfect and fragile it is, and how much needing the unremitting efforts of each succeeding generation in its defense if the blessings of liberty are to be preserved for ourselves and our posterity.

The era of universal voting franchise into which we have entered involves new dangers to the survival of free institutions, both economic and political. The masses want the visible and immediate results of progress and are not either exceedingly patient or farsighted. Particularly in an acute period of temporary depression, discontent is magnified. A society politically democratic, but in which a large share of the fruits of scientific and technological progress mysteriously disappears instead of being passed along in due measure to the common man, is headed for self-destruction.

Monopoly's Part in Causing Depressions

The question has often been asked in recent years: Can capitalism survive? As a chain is no stronger than its weakest link, so capitalism (if that be the name of the existing complex business organization) is in danger of crashing under the weight of a business depression like the present one. The strain upon the democratic structure at such times is terrific, as all the world gives witness. Is there anyone, the most conservative, who has not of late had grave fears that something like a revolution might come before recovery? Have not these fears been renewed and accentuated by the recent recession and the stubborn fact of ten million unemployed and the necessity of continuing enormous doles and treasury deficits after nearly nine years of depression?

Two questions should be distinguished: What caused the collapse in 1929 (or the recession in 1937), and how can it be mitigated or ended? However rash it is to attempt to answer these questions, I venture the opinion that monopoly is not the sole or even the chief cause of financial depressions, although it has some part in causing them. The chief evil effect of monopoly is its long-time, steadily retarding effect on the reduction of the prices which it controls. It distorts the normal equilibrium of the competitive price system. The chief evil of monopoly is secular and lasting rather than catastrophic and temporary. A sudden shock to the whole price system such as that of 1929 and 1937 is not a simple result of forces that have been steadily operating for over a half-century, during several business cycles.

More probably the major fluctuations of the business cycle are mainly due to general monetary causes, including in that term the excesses of credit and of speculative investment. So enormous has become the volume of outstanding dollar indebtedness which links together the banking system, public finance, private business, the vast contractual fixed charges of corporation bonds, and all forms of capitalized incomes, that the whole business system has become a house of cards. If some parts get badly out of balance, the whole structure may topple. The growth both of monopoly and of business depressions is aided and intensified by the overgrowth and abuses of the business corporation device and the excesses of credit. Enterprises are controlled by those who no longer, as was once the rule, carry the burden of investment. They are able by the issue of long-time, virtually unamortized bonds, to own or control business on a margin—often on a shoe string. Every issue of long-time bonds is a gamble on the chance that the earnings may be enough to carry the contractually fixed charges in poor times. Of late the burden of such charges due to excessive corporation indebtedness is often pleaded as the justification for monopolistic control of prices in periods of depression, as if imprudent contracts with creditors created a moral right to exploit the consumers and to violate the anti-trust laws. Other abuses of the corporation device have made possible also the excessive centralization of financial control and the great reduction in the number of independent sellers which is the prime cause for the weakening and disappearance of competition in so many lines of industry. Everywhere throughout the price system, monopolistic control tends to upset the automatic tendency toward equilibrium which is the vital principle of true capitalism.

Monopoly's Part in Aggravating and Prolonging Depressions

Monopoly's share of the guilt for aggravating and prolonging industrial depressions is probably greater than is that for their inception. The best economic opinion of the world is agreed at least on this one point, that once a national or world organization has got into a state of financial depression, the quickest way to get it out would be to give free play to the forces of demand and supply in the markets. Artificially to "stabilize" prices in an industry with unused capacity is

further to unstabilize production and employment in that industry. If all business, not only our own but that of countries with which we trade, were on a cash basis, if there were no outstanding debts, no rigid wages and prices, and no fixed contractual obligations in terms of dollars, there seems reason to think that such a thing as a financial depression would be both mild and brief, if, indeed, possible at all. Disturbances of trade due to such political disasters as war or to great physical catastrophies might, of course, still occur. But all sorts of artificial price rigidities have multiplied in the last century. Inflexible rates fixed by public utility commissions regardless of general price changes are a large factor. The latest arrival, and in some ways the worst, is the stabilizing of certain prices and wages by private monopolistic action, in disregard of other industries and occupations and of the general welfare. Monopolistic industry is for itself, and the devil take the hindmost, and the hindmost are those without monopoly power.

Exactly the same is true of the monopolistic control of wages in an occupation where there is already unemployment. Production shrinks and the blight of unemployment spreads. This is an elementary economic principle and a stupendous practical reality. Owners of idle factories and groups of idle workers collectively defeat their own purposes when they use whatever monopoly power they have to maintain prices and wages in times of depression; and further they thereby mutually aggravate their own troubles as well as the disasters of the whole community. Great key industries and occupations, such as building materials and the building trades, narrow the neck of the industrial bottle through which must flow the production and employment of many related industries and occupations. Employers can see the evil of monopoly wages in their factories; workers can see the evil of monopoly prices for the things they want to buy. Each can see the mote in his neighbor's eye but not the beam in his own eye. It is safe to say that current popular doctrines in business, labor and political circles regarding the benefits of artificially increasing and "stabilizing" wages and prices above a true equilibrium level are responsible in large part for the increasing severity, greater amount of unemployment, and excessive duration of

modern industrial depressions. The general level of real wages cannot be raised by presidential ukase.

It has been one of the stock claims of virtue for the monopolistic stabilizing of prices that it helps to stabilize the whole price level. Since the fallacy of this is being recognized, the effort now is rather to demonstrate that there is no monopolistic price control during depressions, excepting, of course, that of wages. It is true that cartels and agreements of long standing not infrequently break down during a depression, as happened when copper dropped to a world record low of five cents, and as has happened many times in steel, cement and other industries, making them for the time appear to be the most "flexible" of prices.

Centralized Financial Control and Centralized Government

The lessons of the ill-fated N. R. A. would have been worth the enormous cost if it had taught the business world that the vision of "self-governing industry" is a pipe dream. In a democracy, private monopoly cannot be left free to fix its own prices without eventual strict public control. Nor will private monopoly be free if it comes under a political dictatorship. Yet these are the alternatives to the acceptance, by business big and little, of the policy of free competition in free markets.

Who of us does not look with dread at the trend toward centralization of economic and political control in Washington? But the most strenuous protests come inconsistently from those in whose hands is already centralized a large share of the financial and price control of the nation's business. Which of these two kinds of centralization of power do the voters of the nation prefer, plutocratic or political control? The answer is plain: "neither". Free men instinctively fear, and rightly, that excessive centralization, whether of government or of business, threatens their happiness and their liberties. This is the dimly conscious thought back of the popular support of some measures in Washington that seem to many business leaders to be mere blind hostility to all business. Most American citizens are not hostile to the essential features of the capitalistic system. They do not look with favor on confiscation of private property or of profits fairly gained in fair competition; but they see private monopoly as a hateful thing.

The reattainment of free markets in America calls for a large measure of decentralization of financial control. It is not merely a matter of drastically enforcing the anti-trust laws. It may have to be that, but it must be more; it must go to the root of our whole corporate organization of business. The sooner so-called "big business" realizes this truth, the better for it and for all of us. If capitalism, with so much that is precious, is destroyed, monopolistic capitalists will be the destroyers. Real capitalism and private property, it must be remembered, imply a flexible price system in which freely adjusting prices serve constantly to determine the direction of investment and to reëstablish constantly a measure of equilibrium in the system. Centralization of price control and monopoly prices create all sorts of frictions and inequalities endangering the operation of the whole price mechanism. Already capitalism by recent changes has been converted into a complicated top-heavy financial organization better called corporationism It is a fair weather sailor, far less stable in a financial storm than was the simpler craft originally and still properly called capitalism.

If the defenders of big business claim credit for all the fruits of scientific research, higher education, and technical invention, they will have to assume the blame for the increasing demoralization of industrial depressions. The lesson of these recent years seems to be that our complicated corporationism has escaped from social control and has been allowed to pursue financial and material ends regardless of other values in our social life. Economic centralization entails the evil of greater centralized government. Economic decentralization is necessary if the largest possible measure of opportunity and economic independence is to be conserved and restored to our citizenry. I submit, therefore, that the restoration of fair competition will help not only to mitigate the severity of financial depressions, but to ensure the steady secular rise in the standard of living. More important, if we are to continue our progress on the road of civilization, economic freedom and political freedom must go forward hand in hand.

Remarks by the Chairman

Chairman Mitchell: The enviable task of opening the discussion upon these papers we have heard is entrusted to Professor Frederick C. Mills. Professor Mills!

DISCUSSION: THE PREREQUISITES OF RISING STANDARDS OF LIVING

FREDERICK C. MILLS
Professor of Economics, Columbia University

I THINK it is a very significant thing that "Prerequisites of Rising Standards of Living" has been selected as the topic of this meeting. I doubt that we would have thought it necessary, some years ago, to discuss such a topic. We looked upon rising standards of living as well-nigh inevitable, something of the nature of manifest destiny. This view, that progress is inevitable, has reasserted itself time and again in the history of thought. We find something of the sort in the views of Godwin and Condorcet a century or more ago in setting up the doctrine of the perfectibility of man. Later, in the theory of evolution, Spencer and Saleeby read the lesson that human institutions were bound to move on a constantly rising spiral toward perfection.

In more recent years it was the rising secular trend of living standards that we took for granted. We have assumed that there exists a persistent tendency toward higher living standards, that we are not called upon to take any positive action to insure that these standards should advance. But this somewhat naïve faith has been shaken in the last twenty years.

Some of the conditions of rising living standards have been discussed in the main papers that have been presented. It may be well to repeat a few simple facts. I should like to name certain conditions that are essential to rising living standards. These conditions are simple and obvious enough, and yet we are likely to forget them.

First of all, I would name the maintenance and improvement of the equipment used in production. This means, of course, advances in the technical arts. It means, further, the provision of new capital and the efficient use of existing capital. Perhaps the aimless and endless accumulation of capital is not the main requirement here. Invention tends in some degree to make tremendous additions to existing capital less necessary. We may invent a machine that is five times as efficient as the machine it displaces, and yet requires no larger capital investment.

A second condition, I would say, is the effective organization of the agents of production. I refer here to the job traditionally performed by the business man in bringing together the factors of production. Perhaps here lie some of the greatest of the difficulties we face today. There are difficulties in the way of the effective organization, in working units, of our productive agents. Some of these

difficulties are of internal origin. The business enterprise today is a larger affair, it is more complex than formerly, and the tasks of administration and organization are more difficult to perform than they were fifty years ago. Within business units themselves there are difficulties in the way of efficiency that are characteristic of modern times.

Again, there is confusion today as to the limits of free enterprise. We have been going through a period of rapid change in the relations of government to business. As Dean Williams has said, it is perhaps not the fact of change but the suddenness of change that has created difficulty, that has left business uncertain as to the limits of the area within which it can act freely. The clearing up of confusion in regard to the relative spheres of private enterprise and government regulation will help to eliminate this difficulty.

There is doubt, also, as to the division of the field of enterprise between private initiative and government. Government is taking over some of the tasks formerly performed by private enterprise. This, perhaps, is inevitable, but it is unfortunate that confusion persists as to what the respective areas of operation are to be. One should note, too, that efficient instrumentalities of public action in the field of enterprise are yet to be developed. We are groping toward effective agencies through which government may operate in the fields traditionally exploited by private enterprise.

Further pressing problems arise out of changes in the status of labor. Labor is no longer hired under the conditions that prevailed fifty years ago. The task of the business organizer in bringing labor efficiently and harmoniously into a working enterprise is a difficult one, in the changing order of today.

In these obstacles to the free play of initiative we have some of the most serious barriers to rising living standards. The traditional rôle of business enterprise is being changed. We do not yet know what conditions may prevail in the future, and the uncertainties growing out of that situation serve to inhibit enterprise.

As a third condition of advancing welfare I would name the utilization of the principle of division of labor. This time-honored principle has been seriously impaired, in an international way, by the developments of the last twenty years. Some things may be said for economic nationalism in a troubled world, but one of its great disadvantages is clear for all men to see. Living standards the world over are lowered by the compartmentalizing of economic activity.

A major condition of high living standards is, of course, the economic allocation of productive resources. Obvious losses are incurred when these resources are used for purposes other than those related to advances in living standards. Wars and preparation for

wars engage a large part of the world's productive energies today. There is no hope for improved living standards in that direction.

In referring to means of making full use of productive resources I am constrained to say a word or two concerning Mr. Scoville's paper.

As Mr. Scoville was speaking the thought came to mind that perhaps a little humor is a dangerous thing. Mr. Scoville's paper was enlightening, but not altogether persuasive. I think he erred in dealing only with the long-run aspects of his problem. There are differences, and important differences, between the long-run aspects of technological improvement and the short-run aspects. In the long run technical innovations do, of course, raise living standards, but in the short run they may cause very serious dislocations in the working economy.

One of the greatest tasks we face today is that of adapting a complex economy to the rapid pace of technical change. This problem was completely ignored by Mr. Scoville. His picture of machines that might do all the work of mankind is a very happy one, but a question perhaps arises concerning the ownership of these machines and the division of their products. Professor Fetter pointed to this issue, I think, when he spoke of the necessity of assuring to the common man the fruits of technical progress. We miss the essence of this problem if we neglect all the readjustments between buyer and seller, employer and employee, borrower and lender, that are faced *in the short run* as a result of technological change.

As a final condition of advancing living standards I would name the efficient coördination of the elements of the working economy. This brings us to a phase of Professor Fetter's thesis, concerning the rôle of competition. The hidden hand of Adam Smith is perhaps somewhat palsied today, for reasons that Professor Fetter brought out, and yet the hand of conscious control is fumbling, too. We have no effective instruments that coördinate, that harmonize the complex parts of this economic system of ours, and one reason for the persistence of low standards of living today is that the parts of the economy as a whole are not geared together.

The long-term outlook today does not, I think, lead one confidently to expect an economic collapse, as some see it. The outlook, rather, is one of a world fumbling along at a low level of efficiency, with low standards of living. We have impaired the effectiveness of the principle of division of labor. We have, in some degree, impaired the effectiveness of capital. We have impaired the effectiveness of our instruments of coördination. Important productive resources are unemployed. We have diverted tremendous productive resources to non-economic ends. These conditions, if not remedied, mean the persistence of a low standard of living for men everywhere.

THE LABOR SITUATION AS A FACTOR IN BUSINESS RECOVERY

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As one reviews the literature of the business cycle, one finds a fairly general acceptance of the thesis that labor's part in recovery is restricted to making its contribution to the cutting of costs. The theory, put in its most simple terms, runs something like this: Prices fall, profits decline, production drops.

One important factor in the gamut of prices, namely, wages, tends, however, to lag behind the others. This lag, it is held, inhibits the decline in production costs to where profits become unavailable to the entrepreneur at existing price levels.

The problem of stimulating and hastening a revival, therefore, ultimately comes to resolve itself primarily into one of cutting wages.

Such an interpretation of the cost thesis is, to be sure, oversimplified. Other prices, such as freight rates, public utility rates, interest rates, and so forth, are also acknowledged as factors that impede such cost adjustments as are necessary to resuscitate profits.

By and large, however, the major emphasis is on wages. Indeed, one fairly eminent apostle of this school of economic thought stated only a little over two years ago at a meeting of the Economic Association that the revival of business activity after 1933 was definitely delayed by the relief policies of the federal government.

As he stated the case, had relief been denied to the unemployed, workers would have had to accept much lower wages in order to maintain their existence. Thus, costs could have been more adequately lowered, profit margins would have been greater, employment would have risen at a much faster rate, thus hastening the revival of industry.

Certainly no one will deny that changes in hours and wage rates are basically important in recovery. They affect directly the cost borne by competing employers, and the prices paid by consumers.

Wages are an important factor in competitive costs. The individual employer looks upon hours and wage rates as essential elements in his cost of production. To be sure, their importance varies from plant to plant and between different products. To the individual employer, however, in times like these, they appear to be among the most significant items in his competitive position, and hence, in determining his ability to maintain profitable operation.

When viewed from the standpoint of the industrial system as a whole, the wages of the employee group constitute a major fraction of the income of the nation. As such, they play an important part in determining the extent of the demand for the products of industry, and by the same token, for the products of the individual establishments which make up any given industry. Theoretically, of course, a horizontal decline in the price level of all factors that enter into production costs should have no effect upon the real income of workers. Looking at the problem realistically, however, the inflexibilities that prevail in different segments of the economy give little reason to assume that a decrease in wage rates, assuming that a general reduction could be secured over a wide field, would be either followed or accompanied by corresponding decreases in the price of the other factors of production. Consequently, with retail prices and the cost of living at the levels of the present moment, any wage reduction sufficiently large to affect the profit status of industry would tend, for the immediate future at least, to lower the real income of such workers as may be affected by wage reductions. In terms of industry as a whole, such wage reductions and the consequent obstruction to the distribution of income might possibly have a definite effect upon the output of their productive facilities in the sense that they might check the flow of goods into consumption channels. To be sure, lower wage rates might in certain instances be immediately reflected in lower prices to consumers, thus offsetting in part the lowered income of workers, but unless the combined costs of all other factors of production that enter

into the final price were reduced proportionately to the decline in the cash income of the wage earners, they would not be in a position to buy as much as they formerly did. Concretely, a 20 per cent reduction in wage rates on a $10.00 article in which labor costs represent half of the total cost of production would aggregate $1.00, thus permitting its sale at $9.00. Such a decline, however, is equal to only a 10 per cent reduction in price as compared with a 20 per cent decline in the income of wage earners. Accordingly, the purchasing power is cut by 10 per cent.

Such a decline in the purchasing power of the wage earners might theoretically be offset, as far as the economy as a whole is concerned, if consumers other than wage earners increased their expenditures either through direct consumption or by investment sufficiently to offset the loss of wage earner purchases. But experience has shown that increased income in the non-wage earner classes does not necessarily bring with it a corresponding rise in expenditures for consumers' goods. Nor is it certain that an increase in investment would follow. Hoarding and a decline in investment might just as well follow, as was true during the period from 1929 to 1932.

Logic such as this does not resolve problems of the individual employer. The realization of the part played by the total income of the wage earner group in maintaining the proper functioning of the economy is of little solace to him when he must meet the competition of other producers or when bankruptcy is in the offing. Yet in terms of public policy the problem of wages as a factor in income and its flow through the economy is paramount.

Let us look at conditions during recent years, particularly those factors which have to do with labor costs. Taking up, first, the question of hours, we find that the average hours per week in manufacturing industries as a whole, as reported to the Bureau of Labor Statistics, were 37.9 in 1932, and 39.1 in 1936. They reached their peak in December 1936 when the average was 41.1. In March 1937 the average was 41.0 and in January 1938 the average was 33.2. In the non-manufacturing industries average weekly hours in 1932 ranged from 27 per week in bituminous coal to 52 per week in year-round hotels. In 1936 they ranged from 29 in bituminous coal to 48

in hotels. In nine instances the average was over 41 hours per week.

Average weekly hours in the individual industries are of course affected by various factors, such as volume of business activity, part-time, overtime and labor turnover. Accordingly, changes in average weekly hours do not portray changes in the length of the normally scheduled work week. They reflect, rather, the changes in actual operating conditions that result from orders received and from other factors that affect the ability of a firm to operate a given number of hours.

Average weekly hours were generally longer in 1936 in the durable goods industries. In the iron and steel group there were only three comparatively small industries—cast iron pipe, plumbers' supplies, and tin cans and other tinware—where weekly hours averaged less than 40. With the exception of electrical machinery and automobiles, virtually all of the other durable goods industries averaged more than 40 hours a week. In the non-durable goods group average hours were below 40 a week in 1936 in textiles and their products, in leather, and in tobacco. They were in excess of 40 in most of the industries classified in the food group. Cottonseed products, with an average of 49 hours, led in the number of hours worked per week.

In non-manufacturing, average weekly hours were above 40 in nine of the eighteen industries covered by the Bureau of Labor Statistics. These comprised metal mining, quarrying, electric light and power and manufactured gas, electric railroad and motor bus operation and maintenance, wholesale trade, retail trade, year-round hotels, laundries, and dyeing and cleaning. Among these industries weekly hours in year-round hotels averaged 48. In the operation and maintenance of electrical railways and buses the average was 46½ hours per week. The only four industries in the non-manufacturing group that averaged less than 40 hours in 1936 were anthracite mining, bituminous mining, crude petroleum, and telephone and telegraph.

In terms of the length of the working week and its effect upon the productive capacity of American industry it is significant to know that 44 per cent of the employees in the manufacturing industries covered by the Bureau of Labor

Statistics were in industries that averaged above 40 hours per week in 1936. Eighty-eight per cent of the employees in non-manufacturing activity were in industries where the average was above 40. Combining manufacturing and non-manufacturing, one finds that more than two thirds—69 per cent—of the workers were in industries averaging more than 40 hours a week. Moreover, it should be borne in mind that an average of 40 hours is in effect an actual operating week about 10 per cent in excess of that number of hours. Due to shutdowns, illnesses, absences, turnover and the like, the average plant, to average 40 hours for all of its employees, must operate about 44 hours.

It is quite evident that the past six years have not witnessed any marked reduction in the length of the work week. Indeed, throughout the period from January 1935 to March 1937 the trend of industrial activity brought with it a corresponding upward trend in the number of hours worked per week.

Taking up next the question of the earnings of workers, as they relate to costs, one finds that average hourly earnings in the manufacturing industries rose from 46.5 cents in 1932 to 57.5 cents in 1936. In 1937 they averaged 64.4 cents. It is significant that the increase in average hourly factory earnings between January 1934 and January 1937 was 6.7 cents, or approximately 11 per cent. The increase between January 1934 and January 1938 aggregated 13 cents per hour, or 24.2 per cent.

Breaking these averages down for the specific industries, one finds a range for the lower paid industries from an average of 22 cents in cottonseed crushing to 35 cents in fertilizers, and 42 cents in silk and rayon. In contrast, the average in the higher paid industries ranged from 74 cents in book and job printing to 87 cents in tires and tubes, and 92 cents in newspaper and periodical printing. Data are not available showing the relative levels of hourly earnings for the durable as distinguished from the non-durable goods industries in 1932. In 1936 there was a differential of almost 9 cents per hour in favor of the durable goods group, the average for the latter being 62 cents as compared with 53.1 cents for the non-durable industries. Despite this fact, a ranking of individual industries on the basis of hourly earnings shows that among the seven in-

dustries with the highest hourly earnings five were in the non-durable group. At the other end of the scale, the seven industries showing the lowest average earnings were also all in the non-durable group.

Although the figures of average hourly earnings present the best available evidence of the trend of wage rates, they do not serve as a really adequate measure of actual wage-rate changes. This is due to the fact that changes in the proportion of employed workers at a given wage level over a specific period of time affects the general average of earnings for all workers. Thus, prior to 1933, the general average of earnings was reduced in part by the fact that employment fell faster in the higher paid durable goods industries. During the years following, the relatively greater increase in employment in this group of industries played a part in increasing the general average. A case in point is the rise in employment in the automobile industry, which was much more marked between 1932 and 1936 than in manufacturing as a whole. During this period the number of employed automobile workers increased 88 per cent as compared with a 40 per cent rise in the remaining manufacturing industries. This relatively larger increase in employment in the more highly paid automobile industry affected the average earnings of factory workers as a whole. Accordingly, the rise in the average hourly earnings for the manufacturing industries cannot be attributed solely to rising wage rates. It was in part the result of the increase in the number of workers in the higher wage-rate industries.

It should be emphasized that we have been concerned thus far only with hourly earnings. As stated above, fluctuations in average hourly earnings are not an adequate reflection of the course of wage rates. It is virtually impossible to trace the course of wage rates as opposed to the course of hourly earnings. The reason lies in the fact that with relatively few exceptions, all of our important manufacturing industries employ the larger proportion of their workers on a piece work basis. The number of such piece rates is infinite. In a single rubber tire plant, for example, there are several thousand basic rates. Moreover, such rates are continually changing with changes in the nature of the processes and of the work to be done. Accordingly, any discussion of wage rates must be re-

stricted to those relatively few industries where the large majority of workers are paid on a full-time basis.

In the few cases for which adequate wage-rate data are available, there is evidence of a wide divergence between the increase in average hourly earnings and the increase in wage rates between 1932 and 1937. In the much discussed case of building labor, the weighted index of hourly union wage scales for all building tradesmen, both journeymen and helpers, rose from 89.3 in 1932 to 98 in 1937, an increase of slightly less than 11 per cent. The index for 1937 was exactly where it had been ten years previous, in 1927, having risen from 98 in 1927 to 104 in 1930, and having fallen again to 98 in 1937. For journeymen workers, the index in 1937 was 97.6. Ten years previous, when building was booming, the index was 97.9. In the case of helpers and laborers, the index for 1937 was 101.5, or 11.4 per cent above 1932, a level slightly above that of 1929.[1]

In the unionized section of the printing trades the index of wage rates in book and job printing advanced from 101.4 in 1932 to 106.7 in 1937. In the newspaper branch the index rose from 101 to 107.[2] The weighted wage scale for organized truck drivers showed a rise from 72.2 cents in 1932 to 76.7 cents in 1937, an advance of less than 11 per cent. The weighted scale for organized street railway workers increased from 69.4 cents to 72.8 cents. In the organized bakeries the weighted index in 1937 was 92.8 cents, as compared with 95.1 cents five years earlier.

That the hourly earnings of American labor showed a marked rise in the past two years is obvious from all the existing statistical evidence. Such evidence does not, however, justify the conclusion that such increases are entirely attributable to changes in wage rates. To be sure, the widespread increase in rates was an important factor in affecting the level of earnings. Here it should also be pointed out that scheduled weekly hours of employment also played a significant rôle. This was particularly true in those instances where 40 hours

[1] *Monthly Labor Review*, Bureau of Labor Statistics, U. S. Department of Labor, Vol. 45, No. 5, November 1937, p. 1186.

[2] *Ibid.*, December 1937, p. 1512.

became the established work week and where prohibited overtime was payable for hours in excess of that number.

Nor does the evidence justify the assumption that such changes as did occur in the average hourly earnings of workers are an indication of what happened to labor costs. Union labor costs are a function of labor productivity as well as of wage rates. Productivity in turn is a function of the total output of industry and the total man-hours worked. Such rough approximations as are available show periods of appreciable fluctuation in unit labor costs in the face of relatively stable hourly earnings. Between 1934 and 1936, when average factory earnings rose by 2.7 cents per hour, or by approximately 5 per cent, the index of labor cost per unit of manufacturing output declined by slightly more than 3 per cent. During the latter half of 1934 when average earnings ranged from 55.3 cents to 56 cents, the index of unit labor costs varied from 113 to 121, reaching its peak in August, when earnings averaged 55.5 cents and ending the year (December) at 114, when earnings averaged 56 cents. Similarly, in 1935 and 1936 when earnings ranged between 56.4 and 59.4 cents per hour, the range in the index of unit labor costs was between 102 and 113.

In April 1937 when average hourly factory earnings were 63.8 cents the index of unit labor costs was at the same level as December 1934 when earnings averaged 56 cents and at approximately the same level as September 1935 when earnings averaged 56.3 cents. It is significant that the first marked increase in unit costs occurred in June and July of 1937 and that the rise between May and November was 26 per cent as compared with an advance in hourly earnings of less than 3 per cent. The rise for the year 1937 as a whole as compared with the year 1936 was 16 per cent, in contrast with a 12 per cent advance in the annual average of hourly earnings.

It should be apparent from the preceding data that factors other than wages and earnings play an important part in determining the course of unit labor costs. The evidence emphasizes the fact that such costs are frequently more seriously affected by fluctuations in total production, man-hours worked, and man-hour output. Accepting the hypothesis that the importance of wages as a factor in costs and the

HOURS, PAYROLLS, EARNINGS, PRODUCTION AND UNIT LABOR COSTS IN THE MANUFACTURING INDUSTRIES[1]

Year and Month	Average Weekly Hours	Index of Weekly Payrolls	Average Hourly Earnings	Index of Total Man-Hours	Index of Production	Index of Output Per Man-Hour	Index of Labor Costs Per Unit of Output
Average:			Cents				
1929	—	235.1	—	—	189	—	124
1932	37.9	100.0	46.5	100.0	100	100	100
1933	37.9	106.5	46.0	109.9	119	108	89
1934	34.7	135.6	54.8	115.4	124	107	109
1935	36.6	153.7	56.8	126.8	143	113	107
1936	39.1	177.6	57.5	144.8	167	115	106
1937	38.5	211.2	64.4	154.0	173	112	122
1936:							
January	37.3	159.1	57.3	130.4	151	116	105
February	37.4	158.8	57.1	131.0	148	113	107
March	38.6	167.2	57.2	136.6	154	113	109
April	38.7	170.9	57.3	138.9	167	120	102
May	39.2	174.1	57.4	141.8	167	118	104
June	39.2	174.8	57.5	142.3	167	117	105
July	38.5	172.8	57.2	141.4	167	118	103
August	39.4	180.0	57.1	148.4	168	113	107
September	38.7	180.2	56.9	148.9	170	114	106
October	40.5	191.8	57.4	157.8	175	111	110
November	40.6	195.5	57.9	158.4	183	116	107
December	41.1	205.2	59.4	162.4	181	111	113
1937:							
January	39.6	195.5	59.6	153.9	179	116	109
February	40.4	206.5	60.2	161.1	187	116	110
March	41.0	217.9	61.3	167.1	194	116	112
April	40.4	226.1	63.8	166.2	198	119	114
May	39.8	226.7	64.9	164.0	195	119	116
June	39.2	221.8	65.3	159.6	181	113	123
July	37.9	216.4	65.7	154.8	176	114	123
August	38.7	223.7	65.8	159.5	181	113	124
September	37.4	215.7	65.8	153.9	168	109	128
October	37.6	216.2	66.6	152.7	157	103	138
November	35.4	192.9	66.7	135.1	137	101	141
December	34.4	174.4	66.6	122.9	119	97	147

[1] See "Labor in Depression and Recovery, 1929 to 1937", by Witt Bowden, *Monthly Labor Review*, Bureau of Labor Statistics, United States Department of Labor, Vol. 45, No. 5, November 1937, for method of computation.

hypothesis that labor costs must be readjusted, the question arises as to whether wage reductions are the logical devices to employ in seeking a revival of industrial activity. There appears to be evidence to show that there are alternatives to wage cutting. How to bring these alternatives into being is a matter to be solved by the statesmanship of industry. In certain important industries the evidence seems to show that labor costs can be reduced by an amount in excess of what might be reasonably expected through wage cuts.

The problem resolves itself into the relationship between the volume of output and labor costs as such. As a concrete example, the steel industry might be cited. It is today operating at between 30 and 35 per cent of capacity. Based on the technology of 1934-1935, it would require 43.7 man-hours to produce a gross ton of finished steel products at the present rate of output. If the output were to rise to 60 per cent of capacity the number of man-hours that would be required to produce a gross ton of steel products would fall from 43.7 to 34.4. This is a decline of approximately 27 per cent. To realize a saving in labor cost equal to that amount would require a reduction of wages far in excess of what even the most rabid advocate of lower wages would suggest. It is estimated that if the industry returned to its production levels of early 1937 the actual number of man-hours required to produce a ton of steel would fall to a point where it would be about 35 per cent below requirements at today's level of output. Certainly no reasonable person would suggest that wage rates in the steel industry be cut by as much as 30 per cent. Yet there is a possibility of savings in labor costs in excess of that amount if the industry could attain the volume of two years ago.[8]

How to attain this greater volume and in the process enable labor costs to be cut to a degree far in excess of anything that could be reasonably expected through wage reductions is a matter which is beyond the confines of this paper. How far it would involve price cuts would be determined by the flexibility of the demand for steel. There are those who think that the demand is sufficiently flexible to permit the expectation of a

[8] "Man-Hours of Labor per Unit of Output in Steel Manufacture", *Monthly Labor Review*, Bureau of Labor Statistics, U. S. Department of Labor, Vol. 40, No. 5, May 1935.

stimulation of output sufficient to bring production up to the point where the industry can operate in excess of 50 per cent of capacity, if prices were reduced. There are others, however, who think differently.

In the housing field we have also heard a great deal about labor costs and the fact that we can expect a revival of building only when those costs are reduced. It is well to bear in mind that the extent of the savings possible through the wage approach is limited by the fact that labor on the site of housing construction constitutes approximately 34 per cent of the combined cost of labor and materials. Assuming that building wages were brought down to where they were in 1925, that is, reduced by 20 per cent, the net savings in total building costs at the site of construction would be less than 7 per cent. Such a saving would be equal to an 11 per cent decrease in the price of building materials. But are these the only alternatives?

Reputable builders testify that they can average savings far in excess of 7 per cent, the amount they could realize through a 20 per cent wage cut, if they could provide more regular employment to their workers. They contend that they could even offset in large measure the additional costs that result from certain union rules if the cause for the existence of such rules could be eliminated, namely, the irregularity, uncertainty and the temporary nature of employment in their industry.

These are but two instances where the alternatives have real potentialities, in terms of their effects on costs, equal at least to the effects that may be expected from wage reductions. Numerous other instances could be cited.

Considered from the viewpoint of public policy, may it not be better to concentrate on those features which may make for a lowering of labor costs far in excess of anything that can be hoped for from decreased wage rates?

In Memoriam

The Academy of Political Science records its profound sense of loss occasioned by the untimely death of S. Parker Gilbert on February 23, 1938. Although he had been a Trustee of the Academy and a member of the Finance Committee for only a short time, it has been our good fortune to have his wise counsel continuously since 1930. During these years he found time to assume constantly increasing responsibilities, rendering distinguished and unselfish service, for which the Academy is deeply grateful.